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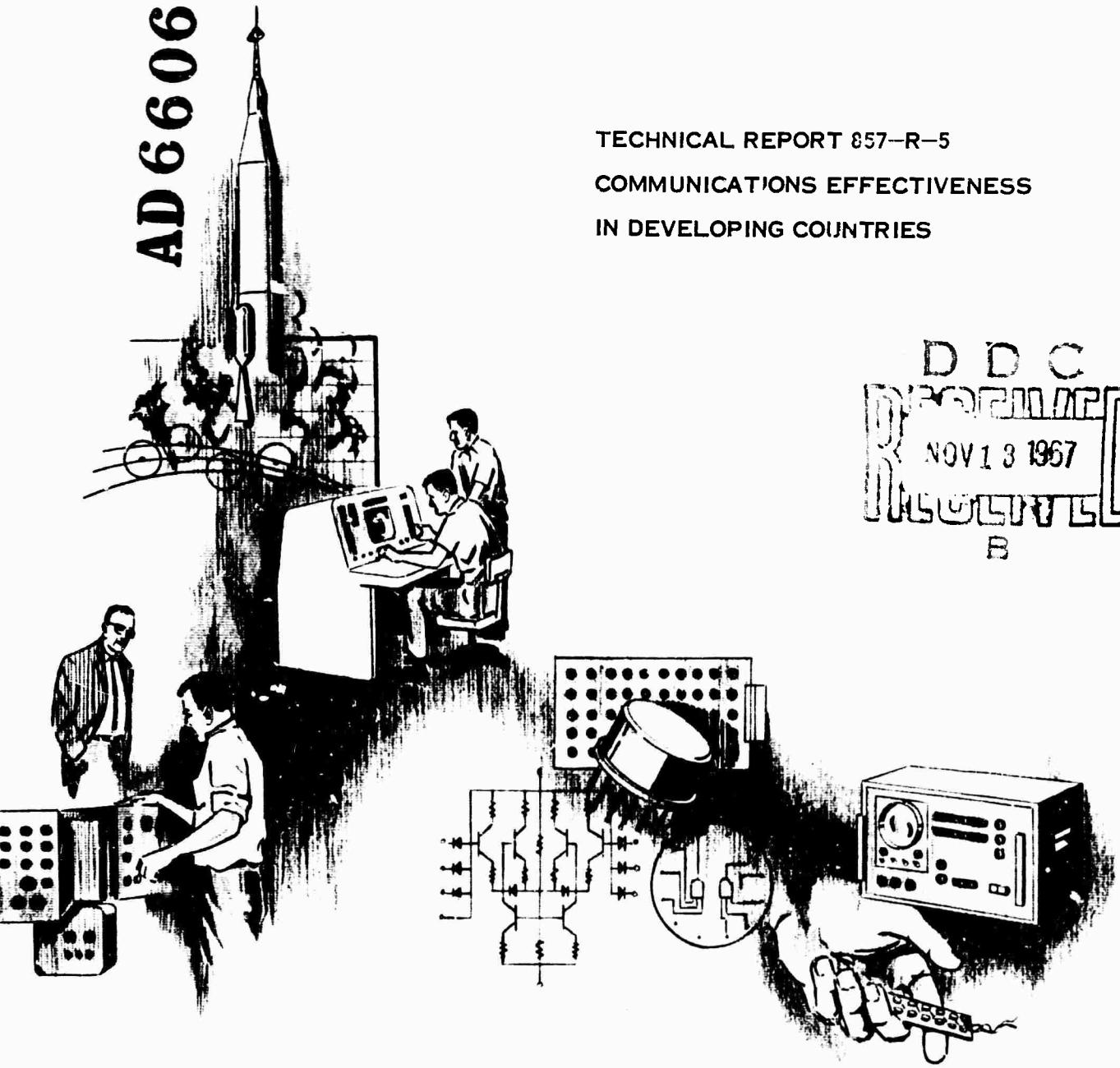
TECHNICAL REPORT 857-R-5

COMMUNICATIONS EFFECTIVENESS

IN DEVELOPING COUNTRIES



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COMMUNICATIONS EFFECTIVENESS IN DEVELOPING COUNTRIES

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(Views expressed are those of the authors and do not necessarily represent those of the Department of Defense)

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EXECUTIVE SUMMARY

This report is concerned with the problem of communicating effectively with people in developing countries. Seven Tagalog speaking provinces on the island of Luzon, Republic of the Philippines, served as the site of the study. Work began with a base line survey aimed at identifying interpersonal sources of information, opinion leaders, and innovators. Data concerning exposure to mass media were also collected. Attention was focused upon people experiencing transition from a rural to an urban mode of life.

A stratified random sample of five communities was selected from each of three successive levels of economic development, where level of development was defined quantitatively. Within each of the 15 communities, 40 people were interviewed from each of two socio-economic classes: 20 high status people and 20 people of average status. Ten members of each socio-economic status group were selected from a poblacion (a population center) and ten from a nearby barrio (hamlet) located at least three kilometers from the poblacion. In this manner it was possible to study communication patterns as a function of level of development, socio-economic status, and place of residence. Insofar as practical circumstances permitted, the choice of communities and people was entirely random. On the whole, most respondents were friendly and cooperative. Further, they could answer most, if not all, questions.

RESULTS

The present survey showed some interesting divergence of findings from those anticipated by a review of past research. Some of this can be explained as a function of changes over time (see item one especially). Others are more plausibly attributed to the fact that in this study the sample of interviewees represented a section of the Filipino population which is experiencing change from a rural to an urban environment, as opposed to focusing upon the traditional, rural population per se. Undoubtedly, other differences can be attributed to some combination of these factors.

(1) The mass media exposure index for the transitional population studied was greater than ninety percent for radio; it was also greater than seventy percent for newspapers and sixty percent for magazines. One third of the

sample had been exposed to posters, one quarter to pamphlets, and one half to comics. Frequency of exposure followed the same general pattern, being on a daily basis for the radio, a weekly basis for newspapers and magazines, and a less frequent basis for remaining methods of mass media presentation.

(2) One's place of residence and socio-economic status were found to have considerable impact upon the nature of mass media exposure. This was especially discernible in the case of printed media where poblacion residents had greater exposure indices than barrio residents and people of high socio-economic status had higher exposure indices than people of lower status. These differences appear largely understandable in terms of proximity to and ability to purchase (and read and comprehend) printed materials.

(3) There was evidence available to support the contention that the impact of radio as a source of information diminishes as competition between media increases.

(4) In general, the higher one's socio-economic status and the more urban and more highly developed his place of residence, the easier it is to reach him using mass media.

(5) As for interpersonal sources of information, results did not follow expectations gained from prior research. Priests and ministers, educators, landowners, and businessmen were seldom mentioned as a major source of any kind of information. More surprisingly, neighbors, in the form of farm owners or tenants and fishermen, were perceived as good sources of agricultural and fishing information by less than fifteen percent of the sample.

(6) Government officials and employees were perceived as the best source of information about almost everything, usually by more than two-thirds of the sample. This result is probably best explained in terms of the sizable rural development effort underway in the Tagalog speaking provinces. There appears to be little doubt that government workers have had an impact upon the people several orders of magnitude greater than similar programs in the U. S. Implications for U. S. sponsored development assistance programs, be they at home or abroad, should be obvious.

(7) The more rural the resident, the more frequent his contact with his most highly valued interpersonal source of information. Further, this discrepancy increased as the level of development of the community increased. Counteracting this

trend, however, was a discernible tendency for poblacion residents to specify a greater number of interpersonal communications sources than was the case for barrio residents.

(8) Evidence of receptivity to interpersonal sources of communication increased with socio-economic status and the level of development experienced.

(9) Formal organizations would appear to offer considerable potential for help in programs of directed social change. This is especially true if one wishes to reach more urban, prosperous people.

IMPLICATIONS

The previous report illustrated how one could apply data of the type obtained in the Philippine base line survey to answer practical questions arising in a field application context in developing countries. To this end, a number of communications options were expressed in terms of the same criterion, viz, the maximal portion of the ith target auidence likely to be reached using the jth medium to relay a particular message. A simple three-term contingent probability model was employed to see how this figure varied as a function of the mass medium employed, the interpersonal communications source used, the formal organization involved, the message content, the dialect used, and the target audience involved. The adjusted exposure index was found to be sensitive to all of these variations -- up to a point where a communications specialist would have to change his strategy of communications from case to case if he wished to reach the maximum number of people in his target audience. While no attempt will be made to summarize all of the points raised, a few of the more important findings are given below.

First, as one might suspect, as far as mass media are concerned, the potential exposure of barrio (rural) residents and people of lower socio-economic status is moderately high for Tagalog radio broadcasts and practically nonexistent for any English language presentation. Second, on the other hand, for poblacion residents and people of high socio-economic status, English language newspapers are a promising medium by which to present items with a news content. At the same time, however, Tagalog radio broadcasts are effective for these people also. Third, no matter if mass media, interpersonal sources of communications, or communications filtered through formal organizations are being considered, it is much easier to reach poblacion residents

than barrio residents and people of higher as opposed to lower socio-economic status. Fourth, interpersonal communications are generally more effective than mass media presentations except in cases such as presenting information to barrio residents and people of lower socio-economic status about certain selected topics -- that is, if one can assume that the people perceived to be the best available sources of information cooperate fully and relay the information with near perfect fidelity. Finally, and most importantly, it would appear possible to use cost-effectiveness techniques to contrast the effectiveness of widely disparate courses of action open to communications specialists.

RECOMMENDATIONS

Recommendations made on the basis of findings of the present investigation are four in number:

First, data similar to those obtained in the base line survey should be put into a library (with other data) where a common format is used. If the format is not common, data retrieval will be a significant problem. An important feature of the format should be to file data by message content and by target audience characteristics. Such a step would be of considerable benefit to people concerned in the field applications problems.

Second, the communications effectiveness model presented in Chapter III should be extended to the point where genuine cost effectiveness indices could be derived. At the same time, however, a series of evaluative models should be presented to take care of instances where men in the field do not have data sufficient to do a complete analysis. In short, there should be a family of related effectiveness models which permit field men to be as rigorous as practical circumstances permit.

Third, since the above steps are aimed at producing decision-making aids for communications specialists interested in planned social change in developing countries, it is strongly recommended that

a study be made of the action alternatives realistically open to them. Much time can be wasted studying processes not susceptible to the control of the communications specialist, e.g., the dynamics of the existing society.

Fourth, the level of development measure used in the study should be expanded so that it is possible to relate changes in communication procedures to variations in level of economic development. This feature would permit long-range strategies to be derived as one deals with nations in the process of transition from a lower to a higher level of economic development. This study shows clearly that significant changes in exposure and receptivity can be anticipated in such cases.

TABLE OF CONTENTS

LIST OF ILLUSTRATIONS

Reverse (Page xiv) Blank

LIST OF TABLES

CHAPTER I. PROBLEM AND APPROACH

This paper is concerned with the general problem of how one can communicate effectively with residents of developing countries. Although a reasonable body of knowledge exists concerning communications patterns among people living in a rural, traditional, generally subsistence culture, as well as communications in more highly developed modern countries, comparatively little is known about communications patterns of people experiencing change from a traditional (rural) to a more urbanized (modern) mode of life. This lack of concrete knowledge has important implications since most of the underdeveloped countries in the world either are experiencing or will experience this type of change. Therefore, it is a problem of practical importance to determine specific ways and means to keep in touch with people in transition for such purposes of further assisting the course of orderly economic development, to insure that the government can adapt to the changing needs of its people, to eliminate or reduce the possibility of internally or externally induced power struggles of a disruptive and destructive sort, etc.

Naturally, answers to such basic questions can be expected to vary as a function of the particular culture under scrutiny. Still, if a body of knowledge is to be developed at all, it is necessary to begin somewhere. The geographical area selected for this study was the Republic of the Philippines, an apt place to investigate the problem for a number of reasons. First, there exists within the country a wide variety of styles of living, ranging from the very traditional to the very modern. Second, the society is free and open, and therefore susceptible to objective, impartial investigation. Third, the people are friendly toward U.S. citizens. Fourth, the government itself is deeply committed to the task of raising the general level of development of the people; therefore, one can expect more and more of the population to undergo transition from traditional to modern styles of life. Finally, practical constraints dictate that in order to study any such problems effectively abroad, one must work closely with host nationals who are not only experienced in social scientific methods, but also intimately familiar with the country and culture in which the study is taking place. This criterion was satisfied by establishing a close working relationship with the Institute of Philippine Culture, Ateneo de Manila University, Manila, Philippines. One of its staff members is a coauthor of all reports in this series.

But even the Philippines is a large area in which to conduct an exploratory investigation of this sort. There are many islands and numerous dialects spoken; both of these features tend to make study difficult. To economize resources, and to hold to a minimum possible extraneous factors which could contaminate results in some unknown way, it was decided to conduct a survey on the principal island of Luzon in the seven provinces where Tagalog is the major dialect (Tagalog and English are the two official languages in the Philippines, a fact not recognized by many U. S. citizens who expect residents to speak Spanish). Also, in order to focus on people experiencing change, attention was restricted to people residing in or near the rapidly growing new population centers in the various municipalities, settlements called poblaciones, or a poblacion.

The basic thesis under investigation was that there is no single, unique solution to the problem of establishing and maintaining effective communications which will hold for all Philippine residents -- or residents of any other country for that matter. It was hypothesized that the best available communications stratagem would vary as a function of the amount of urbanization experienced, the socio-economic status of the people with whom one wishes to communicate, and the level of development of the community in which they reside. In short, selection of the most effective means of communication was expected to vary as a function of characteristics of the target audience. Other factors felt to be important sources of variation were the content of the message one wishes to impart and the particular communication medium employed. The basic goal was to collect, collate, and interpret data relevant to the question of what means of communication are most effective when attempting to reach a target audience with certain defined characteristics when one wishes to impart various types of messages having different contents. By use of a relatively simple mathematical model, an attempt was made to provide a partial quantitative answer to the above question. Presumably, such a tool would be useful to the host national government itself, as well as the U. S. personnel from the Agency for International Development (AID), the United States Information Agency (USIA), various groups concerned with community development, and components of the Department of Defense (DOD) who, through treaty obligations, are interested in the task of insuring that the integrity of the local government is not undermined by externally applied pressure.

To accomplish this purpose, numerous tasks were undertaken. One task was to review research on communications effectiveness in the Philippines (Parco and McKendry, 1967); another was to provide a concrete, quantifiable definition of level of development which would be useful in applying results to other developing countries (McKendry and Parco, 1967). A third was to devise a method of conducting an initial base line survey to provide data needed before one could attempt to answer questions of the type raised previously. That work is discussed in the remainder of this chapter. Once this step was taken, results of the survey had to be summarized. Chapter II deals with this task. Finally, illustrative applications of the data to practical field communications problems were needed; these are provided in Chapter III. All of these steps indicate an evolution of some answers to difficult problems. Hopefully, this and other reports in the series will help to stimulate more work in the area.

Survey Design

When one wishes to conduct a field experiment, he must, by necessity, use techniques which are different from those available in the laboratory. Still, if the answers derived are to be at all meaningful, the approach should be as rigorous as circumstances permit; i.e., one should apply well-developed tools wherever possible. When the task involves study of the impact of broad social forces, such as socio-economic status, there are few ways to simulate this realistically in the laboratory. Therefore, it is necessary to resort to collecting observations under carefully controlled conditions in a naturalistic setting.

The first step taken was to provide clear definitions of each of the three major variables studied. Level of community development was defined by the presence or absence of certain facilities which formed an ascending series of visible economic progress. For example, if a community was found to have a hotel, a hospital, and a motion picture theater, one could be more than ninety percent certain that it also had piped water and electricity, as well as resident physicians and a police force. A second variable, place of residence, was more easily ascertained. People either lived in a poblacion (a population center) or in a barrio, a small hamlet. The third, and last variable, was socio-economic status. Only two levels of socio-economic status were studied. People of high status were those who had more than enough to subsist (a surplus), and who had the respect of the people (a requirement met by obtaining nominations

by community members). Usually, these people were well educated and were smooth in their interpersonal relations with people of all classes. Normally, they had influential political contacts as well. Although the term used to describe such individuals was "big people," they were not the idle rich but largely hard-working people who succeeded through an application of effort likely to warm the heart of a Goldwater Republican (cf. McKendry, McKendry, and Guthrie, 1967, especially Chapter VI). These individuals comprised approximately twenty percent of the population studied. The rest fell into a "little people" category which one can define statistically as an average person in the Philippines.

Having established relatively clearly just what was being studied, a design was formulated to assess the impact of each factor working alone or in various combinations. The place of residence variable was introduced to provide some assessment of the impact of the urban-rural continuum. Therefore, barrio residents were interviewed only in a barrio which was located three or more kilometers from the poblacion -- outside convenient walking distance.

The universe of 209 poblaciones in the seven Tagalog-speaking regions of the Philippines was stratified into three categories with respect to level of development: below average, average, and above average. Within each level, five communities were selected at random. Within each community, at each of the three levels, after the population of big people was identified, random samples of ten big people and ten little people were interviewed. A random choice of a nearby barrio was made from those which satisfied the criterion of being at least three kilometers from the outskirts of the poblacion. As was the case in the poplacion, in the barrios, after the population of big people was identified, ten people from each socio-economic group were selected randomly for interviewing.

Figure 1 illustrates the design employed. Table I provides a description of the random variables and the fixed constants in the design. Obviously, such a design was "mixed" in that one variable (level of development) had its impact assessed by comparing responses of random samples of communities at each level, while the other two variables were evaluated by contrasting responses of

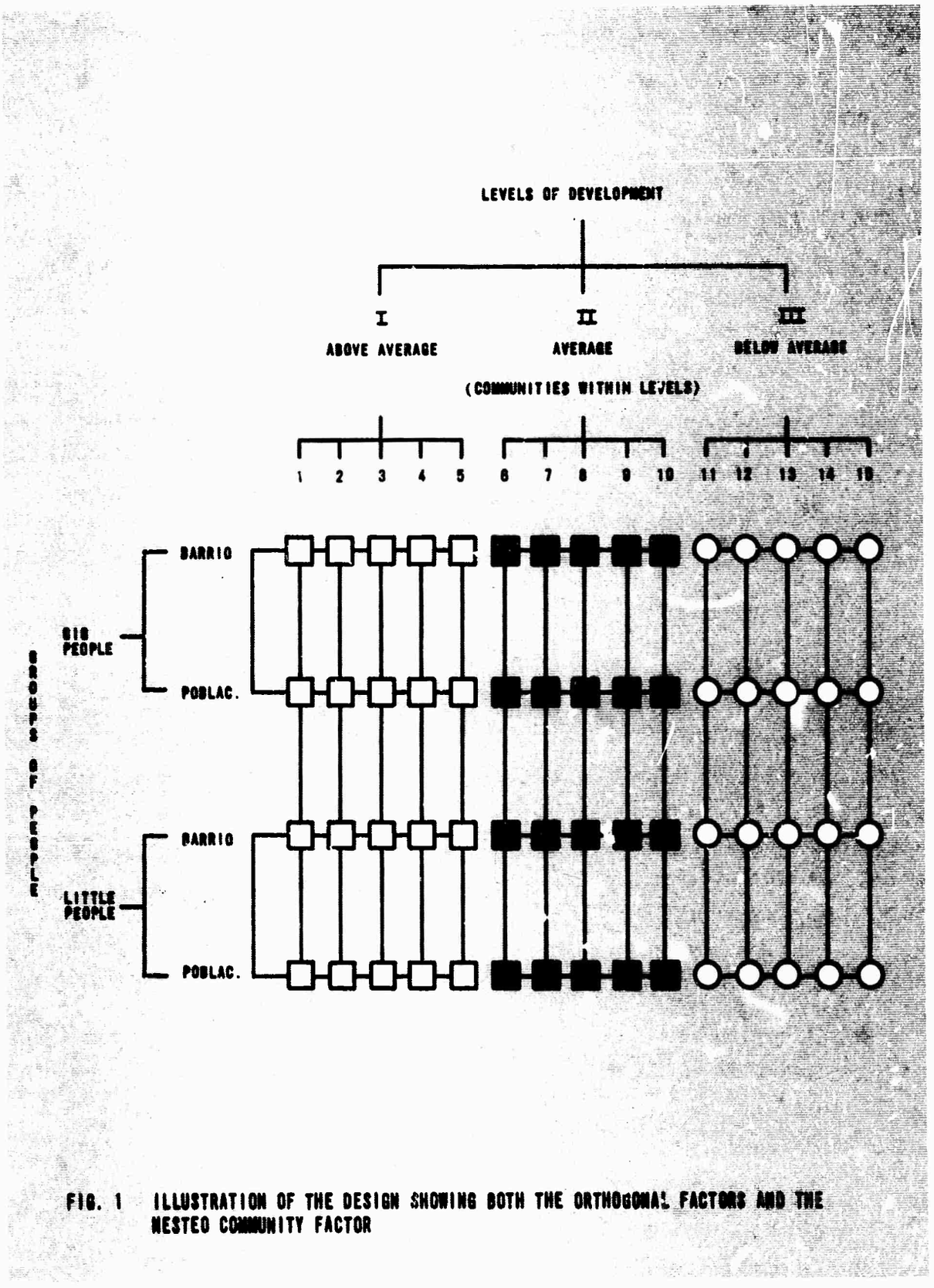

FIG. 1 ILLUSTRATION OF THE DESIGN SHOWING BOTH THE ORTHOGONAL FACTORS AND THE NESTED COMMUNITY FACTOR

TABLE 1 DISTINCTION BETWEEN VARIABLES WHICH "MANIPULATE" RESPONDENTS BY STRATIFYING AND VARIABLES WHERE RANDOM SAMPLES ARE TAKEN TO FACILITATE GENERALIZATION TO A LARGER POPULATION	
RANDOM SELECTION	FIXED CONSTANTS
COMMUNITIES WITHIN LEVEL OF DEVELOPMENT	LEVEL OF DEVELOPMENT
SUBJECTS WITHIN SPECIFIED SOCIAL GROUPS	SOCIO-ECONOMIC STATUS PLACE OF RESIDENCE

different groups of people within the same community, replicated over all fifteen communities. Since interviews, by necessity, require multiple responses from the same subjects, the following inference chain resulted. First, by studying the pattern of responses of individuals (within subject comparisons), one can draw inferences concerning the behavior of individuals in specified groups. Second, by contrasting response patterns of different groups one can draw inferences concerning differences between groups of people within communities. Third, by contrasting response patterns of residents of communities at various levels of development, one can assess the impact of level of development. Thus, an interesting chain of possible levels of inference emerges as shown in Figure 2. In order to avoid confusion in readers not particularly enthralled with the topic of experimental design and statistical inference, the remainder of this report will present results in straightforward terms. This technique also permits a compatibility of presentation when both metrical and nonmetrical data are presented together.

Method of Selecting the Communities

Selection of communities as samples for this study was accomplished as follows. The final sample of fifteen communities was a stratified random sample from the universe of all 209 municipalities geographically located in seven Tagalog-speaking provinces in central and southern Luzon, Republic of the Philippines. These provinces and the respective number of municipalities in each of their political jurisdictions were Batangas (30), Bulacan (24), Cavite (22), Laguna (30), Nueva Ecija (30), Quezon (44), and Rizal (29).

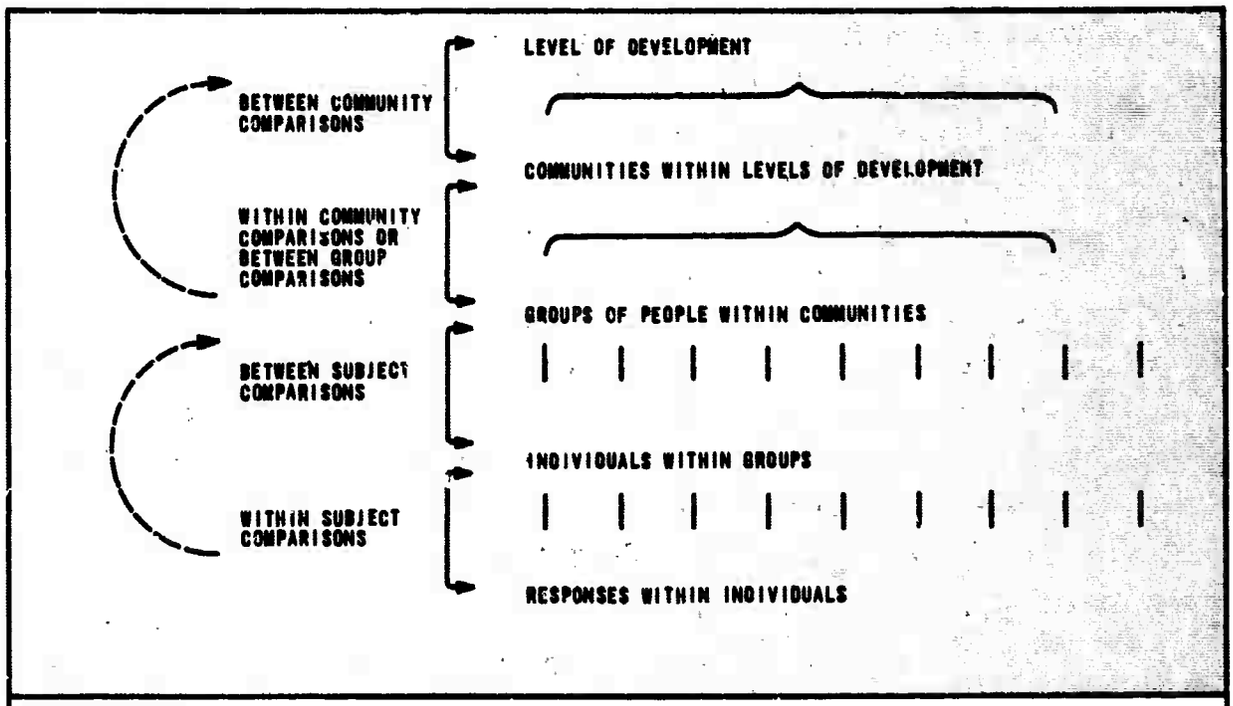

FIG. 2 ILLUSTRATION OF THE PROCESS OF INFLUENCE WITH NOTATIONS CONCERNING THE PROPER VARIANCE COMPONENT TO USE AT EACH LEVEL OF INFLUENCE

Tagalog-speaking provinces were selected to hold language features constant as far as possible and for ease in administration and supervision of the field work. The Institute of Philippine Culture of the Ateneo de Manila University at Loyola Heights, Quezon City, served as the base of field operations. Data collection was limited to areas felt to be representative of lowland Philippines.

Taking the final sample from these seven provinces was a methodical process. Since the one stratification variable in this study was the level of development of the community, Guttman scaling was used to determine which communities belonged to an "above average" level of development, which ones represented an "average" level of development, and which ones could be considered as being "below average" in their level of development. Therefore, it was necessary to ascertain the level of development for each community in the universe prior to regrouping them into these three relativistic categories.

A description of the scale used to measure level of development is provided in McKendry and Parco (1967). In brief, the three levels of development of the communities were ascertained by using a slightly modified version of the checklist evolved by Isao Fujimoto (1965), who, in his study of community differentiation, used Guttman scaling techniques. In the study he derived an ordinal scale which arranged municipalities in the island of Mindoro according to their level of development; but he did not attempt to collapse the scale into three "above average," "average," and "below average" catagories. This arbitrary classification was used in order to permit random selection of a set of equated replicates which when taken collectively would be reasonably representative of the entire level-of-development variable without introducing the need to study the variable at numerous intervals along its range.

Fujimoto's determinants for community differentiation, which appeared in his final Guttman scale, were (in ascending order) the presence of a post office, police force, paid municipal secretary, municipal building, resident doctor, market, plaza, dry goods store, gasoline station, high school, newspapers for sale, churches, electricity, hotel, shoe repair shop, piped water, movie house, park, bank, hospital and public phone. The list comprised the basic set of items for the new checklist. A survey was conducted to determine whether any, all, or how many of these facilities were present in the 209 municipalities of the seven Tagalog-speaking provinces. Key informants, including provincial and municipal government officials, extension workers, public school supervisors, bus inspectors, postmasters, etc., were interviewed to ascertain the presence or absence of these facilities in each municipality. When all of the data were gathered, Guttman scales were developed for each province and a generalized scale of development for all seven provinces was derived.

The cutoff point for "below average" (plaza) communities was influenced by the fact that old towns established during the Spanish period in Philippine history usually first put up such infrastructures as the municipio or presidencia (municipal building) which served as the seat of local government, the church and the market. The open space fronted by these three buildings was usually called the town plaza. While it is evident that the police force, municipal secretary and post office would be housed in the municipal building, and dry goods stores would be found in or near the market, there is great probability that a resident physician may have his house near this "plaza complex" which,

to anyone familiar with rural Philippines, is characteristic of municipalities which may be considered hypothetically as "below average" in their level of development--that is, if nothing else but the prior-mentioned features can be found in it.

The "average" municipality, in terms of its level of development, had all the characteristics of the "below average" municipalty plus the following facilities: a high school (either public or private), a gasoline station, electricity, and newspapers available for purchase. The activities of people in an "average" community were more complex than those of people in below average communities who stayed busy keeping up with the ordinary routine of attending to local government affairs, church festivities, market days, taking promenades in the plaza, and probably making some irregular calls on the resident physician. Instead, their activities became a bit more complicated by the larger number of students acquiring a high school education in the local public or private high school, the activities and opportunities associated with the presence of electric power, the slight vehicular traffic which necessitated the presence of a gasoline station, and the noise of newsboys selling papers, as well as local filosofos (philosophers) discussing the news and views they read in the newspapers. In other words, in an "average" community, life involved a system of activities devoted not only to governmental administration (including the regulation of peace and order, postal communication, commerce, health and sanitation) but also to religion, entertainment, education, transportation and mass communication as well.

"Above average" municipalities were relatively sophisticated, urban communities with all the characteristics of the "below average" and "average" municipalities and some other more impersonal and specialized activities engaged in by people having increasingly divergent occupations. This time, aside from engaging in the activities mentioned for the "average" municipality, the "above average" municipality had a more formalized manner of handling money in circulation in the community, and a more organized system of providing personal and public services to its citizenry. The services to which a citizen could avail himself in an "above average" municipality were those achieved through a growing money economy. This is all evidenced by the items which depicted the scale for this particular level of development: (presence of a) bank, shoe repair shop, piped water, movie house, park, hospital, public phone, and

hotel. The bank was an indication of the volume of money in circulation as well as the credit existing in the community. The shoe repair shop indicated job specialization and diversification among community residents. A piped water system was a visible sign that its people were handling its water problem, and consequently its health and sanitation, through a more organized manner of allocating the water supply. The presence of a movie house and a park was indicative of increased entertainment and recreation facilities available to its citizenry. A hospital in any community is a symbol of the value given to life itself and to the care of the sick. The telephone signified the presence of a network of communication which goes beyond the face-to-face, person-to-person type of communications. And the hotel is always a landmark for a community that receives transients into its fold (for purposes of business or pleasure) and gives them service that individual households may not care to give to strangers

This description serves to depict what is meant by the terms "average," "above average," and "below average" communities, with regard to the level of economic development and a pattern of everyday life. As a result of sorting the 209 communities into these three catagories, 52 municipalities fell into the category of "below average," 105 into the "average," and 31 fell into the "above average" category. Twenty-one municipalities were rejected from the population for not qualifying even in the "below average" class; i.e., one or more of the basic list of facilities was absent. With the exception of the rejects, the population from which the five sample communities were selected randomly included the entire population available. A table of random digits was the instrument for selecting the sample of five municipalities from each stratum (group of municipalities classified in each level of development). Originally, eleven municipalities were selected from each stratum in order to provide adequate substitutes for municipalities which had to be rejected for one reason or another. For instance, Cavite and Quezon City, by virture of being suburbs of Manila, were rejected. Two other municipalities (Lobo, Batangas, "average," and San Mateo, Rizal, "below average") were rejected from the sample because they did not have a barrio located three or more kilometers away from the poblacion. Alabat, Quezon ("below average"), was not considered because as a town on an island, problems of transportation would be involved. Marilao, Bulacan ("below average"), was also not considered because it was already the subject of systematic study by another research project in the IPC.

Description of the Communities

The communities selected for this study were the following, classified according to their level of development:

		Population
Above Average:	San Pablo City	70,680
	Lucena City	49,264
	Binan, Laguna	33,309
	Gumaca, Quezon	27,284
	Batangas, Batangas	82,627
Average:	Baler, Quezon	10,350
	Rosario, Batangas	32,868
	Cuyapo, Nueva Ecija	30,634
	Padre Burgos, Quezon	16,262
	Kawit, Cavite	19,352
Below Average:	Luisiana, Laguna	8,746
	Pililla, Rizal	9,021
	Jala-jala, Rizal	5,223
	Gen. M. Natividad, N. Ecija	9,539
	Malvar, Batangas	7,560

The above average communities tended to be the oldest, having been established during the pre-Spanish or Spanish periods, i.e., before 1898. The average and below average communities were established either during the latter part of the Spanish or during the American period (1899-1945). More aliens were found in the above average communities than in the below average communities, with the Chinese exceeding, in terms of number, the Americans, Spaniards, Indians, and Germans.* Three of the below average communities

*In the Philippines, these people are usually engaged in business or commerce, as is the case in most developing countries.

did not have any aliens at all. In general, no aliens were found in the control barrio communities surveyed in each city or municipality.

In practically all fifteen of the poblacions studied, there was a public elementary school offering complete primary and elementary school education, and a private high school. The exceptions were Kawit, Cavite (average), which did not have a private high schooland offered only the first year of work. As one might expect, elementary schools and schools offering vocational and college level courses were found more often in above average than in average communities. There was a government-operated college in one of the above average communities (Batangas). The school offering the highest level of education found in any of the barrios surveyed was a private or public elementary school.

Roman Catholics were found in all the communities surveyed, either poblacion or barrio. The Iglesia ni Cristo (Protestant)groups were located more in the poblaciones than in the barrios. The third largest religious group were the Seventh Day Adventists and the Aglipayans who tended to reside more in above average and average than in below average communities, followed by the Jehovah's Witnesses and Methodists who followed the same residential pattern. Other religious groups present in the communities surveyed were the Baptists, Evangelical Church, "Spiritista," United Church of Christ, "Iglesia Evangelica Methodista en las Eslas Filipinas," Lutheran,"Iglesia Mistica de Dios," "Rizalista," "Pentecost," "Colorum," and KLK (sic). The barrios in general and the poblaciones of below average municipalities tended to have a smaller number of religious groups than poblaciones of above average and average municipalities.

Except for one barrio in an above average municipality (Gumaca), all communities, both poblaciones and barrios alike, had a Roman Catholic church or chapel. The Iglesia ni Cristo had a church or chapel in poblaciones of half of all the municipalities. All other Protestant groups had churches or chapels located in most cases in the poblacion. Among the Protestant groups, only the Iglesia ni Cristo, Aglipanyans, Jehovah's Witnesses, United Church of Christ, and Baptists operated a chuch or chapel in one to three barrios. As a rule, priests and ministers resided only in the poblacion. The only religious groups which had a resident minister stationed in a barrio were Jehovah's Witnesses and the Pentecost.

Government assistance in community development was in evidence everywhere. Of all the government extension agents, the Rural Health Units, composed of a medical doctor, nurse, midwife and/or sanitary inspector, were the most expansively dispersed; RHU's were operating in all the 15 poblaciones and in six barrios as well.* The Presidential Arm on Community Development had teams assigned in all but three below average poblaciones. Also, in eight barrios of these 12 PACD-covered municipalities there was a barrio development worker. The Agricultural Productivity Commission had teams located in 11 poblaciones and five barrios, while the Bureau of Plant Industry had workers in ten poblaciones and one barrio. The PACD, APC, and BPI tended more to assign their extension agents in above average and average municipalities than in below average municipalities. Also, the higher the level of development of the municipalities, the more extension workers they had. Other extension agencies which had workers in some poblaciones or barrios were the Bureau of Animal Industry, Bureau of Fisheries, Peace Corps, Philippine Rural Reconstruction Movement, and Farm and Home Development Office of the University of the Philippines College of Agriculture. In short, the area studied provided ample evidence of the action effort for community development in the Philippines--an effort that spanned many areas from health and sanitation to agricultural practices.

In most cases, professionals like medical doctors, lawyers, dentists, engineers, nurses, midwives, accountants, etc., lived in the poblacion; and they tended to be found more often in above average and average municipalities as opposed to below average municipalities. Two barrios in above average municipalities were sufficiently well developed economically to support a lawyer. One above average barrio also had a certified public accountant for a resident, but he taught school in a nearby town and did not practice his profession in his place of residence. One average barrio had a resident midwife. More teachers were found to live in the barrios than any other type of professional person.

*In the Philippines, organizations are often spoken of in terms of their abbreviations. Therefore, the first letter of each major word is underlined in this discussion.

The most common commercial establishment in any poblacion or barrio, regardless of its level of development, was a sari-sari store, the counterpart of the corner grocery store in the U.S., which is about the size of a newstand. All the poblaciones had a least one barber shop; but, surprisingly, more barrios in the below average towns had a barber shop (or a barber without a shop) than barrios in the above average and average municipalities. Drug stores, tailoring or dress shops, beauty parlors, rice or corn mills, and recreation halls were found in all but one or two municipalities. The only town that did not have a drug store, tailoring or dress shop, and beauty parlor was Jala-jala, a below average community. Padre Burgas, an average community, had neither a rice or corn mill nor a recreation hall. There were more chances of finding a tailoring or dress shop, a beauty parlor, a recreation hall or a rice or corn mill (aside from a sari- ari store and a barber shop) than any other commercial establishment in the barrio. Banks, factories manufacturing shoes, candies, gloves, wine, wooden shoes, cigarettes, or gasoline refineries, gasoline stations, and movie houses were found only in the poblaciones--with more of these establishments being located in above average and average towns than in below average municipalities. One or two towns in all three levels of development had a bakery, a cockpit, and a billiard hall. One average municipality (Padre Burges) stood out from among the average and below average towns because, while it did not have a recreational hall, a rice or corn mill, a bank, or a movie house, it did have a carienderia (public eating place), a bakery and an ice plant. Above average towns and cities had more diversified commercial establishments than the average and below average communities.

Religious and school organizations were found to exist in the poblacion of all the communities, regardless of level of development. Religious organizations were also found to exist in three barrios, one from each level of development. School organizations as well as women and youth organizations were the most popular ones in the barrio, with nine barrios distributed evenly among the three levels of development having these organizations. Civic and professional organizations as well as farmers or fishermen's cooperatives were widely dispersed among all the three levels of development. Labor unions and credit unions tended to be found only in above average communities. Sports and professional organizations were found only in the poblacion.

While poblacion residents, regardless of the level development of their municipality, tended to go to another municipality in their province (besides their place of residences) or to a city to sell their products, to buy things not found in their community, or for entertainment, barrio residents were in general dependent on the poblacion located in their municipality to fulfill these same needs. In addition, residents of above average and average communities more often than others tended to go to another province when they wanted to sell their products, buy things not found in their community, or seek entertainment.

One of the first things that strikes a traveler in a developing country is the "different" pattern of transportation used. That is, it is much more versatile and makeshift than mass transportation in the U.S. This is especially true in the Philippines as can be seen from the following summary statistics. That Philippine invention, the "jeepney" (military jeep converted into a passenger vehicle whose capacity can be as elastic as the number of passengers in need of transportation), and the bus seemed to be the two means of transportation most readily available to both poblacion and barrio residents at any level of development. Only two below average poblaciones, Jala-jala and Gen. M. Natividad, did not have a jeepney or a bus available to their residents. No jeepney was available in three barrios: one in an average municipality (Cuyapo) and two in below average municipalities (Luisiana and Jala-jala). In three barrios, one from each level of development (Binan, Rosario and Malvar), the only available means of transportation was a jeepney. Seven barrios, one in an above average town (Bian), four in average towns (Baler, Rosario, Cuyapo and Kawit), and three in below average towns (Jala-jala, Gen. M. Natividad and Malvar), were not serviced by a bus line. Baler (average), however, had a weapons carrier which served as its basic means of transportation.* The only available means of transportation for residents in the barrio of Luisiana was the bus. Above average communities were linked to other communities by train. However, no taxicabs were found operating in the sample communities, even in the above average communities. A little more than half of all the communities also had horse-drawn calesas and pedicabs, or motorized tricycles for transportation,

*The fact that this vehicle was in running condition long after being phased out by U.S. Forces is a tribute to Filipino mechanical ingenuity.

although these were found more in above average and average communities than in below average communities. At least in one barrio of an average community (Cuyapo), the only means of transportation was the calesa.* Bancas, rafts or motorboats were found in one-third of the communities, most of which were average and below average in their level of development. There was one barrio (Jala-jala) which could be reached by water transportation only. Horses were still being used as one of the means of transportation in one above average barrio (Lucena), and in both the poblacion and barrio of one average community (P. Burgas).

Residents of the poblaciones of all above average municipalities benefitted from newspapers and magazines which were delivered, mailed as subscription copies, or sold in news-magazine stands. Also, comic books were sold in news-magazine stands or sari-sari stores. In poblaciones of average and below average municipalities, there were more newspapers, magazines and comics available at news-magazine stands than there were being delivered by publishers' agents or through the mails. By contrast, the availability of printed material was much lower in the barrios. For example, about half of the residents of the barrios in all three levels of development were generally deprived of such reading materials. For instance, only three barrios (two from above average towns and one from an average town) reported having subscription copies of newspapers delivered to some residents and received magazine subscriptions which were delivered by publishers' representatives. Two barrios of average municipalities received newspaper subscription by mail. In addition, one of these two barrios and another one as well (also of an average town) received magazine subscriptions by mail. There was no way of knowing, however, how many times these copies of newspapers and magazines changed hands. Residents of four barrios (three from above average and one from an average municipality) had comics distributed by local sari-sari stores on a rental basis. In fact, at least in two of these barrios, rented comics were the only available reading materials. In half of the sample barrios (one from above average, two from average, and four from below average municipalities), there were no reading materials available at all.

*A small horse-drawn carriage.

Interview Conditions

The questionnaire employed is shown in Appendix A. In addition to asking the question, interviewers tried to ascertain which ones tended to pose problems for the interviewees. These "problem questions" are discussed more fully below. As for the time interviews were held, one-third of all interviews were conducted between nine in the morning and 12 o'clock noon, with the majority being held before 9 A. M., between 12 noon and 3 P. M., or between 3 and 5 P. M. Only 12% of the interviews were held after 5 P. M. It usually took from 30 minutes to one hour to interview a respondent. There were some interviews which lasted from one to two hours, and only two interviews were so complicated as to last for more than two hours. There were, however, five which took less than 30 minutes.

In most cases, Tagalog was used as the language during the interview. One-fifth of the respondents preferred to be interviewed in English, while more than one-tenth felt more at ease with a combination of English and Tagalog during the interview. There were only 20 respondents who had to be interviewed in Ilacono and one in a combination of Ilacono-English.

In most cases, interviews were conducted in the homes of the respondents, but there were instances where the interviews had to take place in the respondent's office, in his yard, in the open field, in a store or market, or some other place. Almost one-half of the interviews were held when one or two other people were present. About one-fifth of the interviews had to be conducted with three or four people present. In 30 cases, there were five or more people present during the interview. However, one-third of the interviews were conducted while the respondent was alone. In most cases, those who were present during the interview were members of the respondent's family. If there were non-family members present, most of these were the respondent's acquaintances, relatives or neighbors.

In spite of the presence of people other than the interviewer and interviewee, only 28 percent of the interviews were interrupted. The intruders were mostly family members or acquaintances. Other intruders were neighbors, strangers or relatives. One-half of the interruptions took less than five minutes. Other interruptions ranged from five to ten minutes, while the rest took less than 30 minutes -- except for four interviews which had to be interrupted several

times and for a duration of more than 30 minutes due to the interviewees' busy schedules. On the whole the respondents were interested or cooperative. However, by virture of prior experience,the interviewers were also able to handle interviewees who were indifferent, hesitant, frightened or antagonistic. This approach was felt to be preferable to selecting only cooperative respondents.

Problem areas in the interview schedule which gave the most difficulty to the interviewers concerned individual aspirations (E), sources of information (G), opinion leadership (H), and innovativeness (I). The problem question in the area of aspirations was that one about what things the respondent would like to own most. There were five pre-coded categories listed on the questionnaire, but what apparently happened was that respondents would not limit their aspirations to ownership of things which could be classified in one category. Instead, they would name a number of things which crossed categories and the interviewers had a problem of coding the respondents' answers. The questions and pre-coded answers are as follows:

#6. Almost everyone would like to have some things which he does not now have. What things would you like to own most?

1. Personal adornment: Watch
2. Household equipment: Radio and TV
3. Kitchen applicances: Refrigerator
4. Motor vehicle: Jeep, Car
5. Other_____

The problem questions in the area of sources of information were questions #1 and #8. Questions #1 was as follows:

#1. Whether or not information is of real value may depend upon the type of information and who provides it. In your opinion, who in this community are the people you consider as valuable sources of information?

a.
b.
c.
d.
e.
f.
g.
h.
i.
j.

Response code:

1 = 1 source mentioned
2 = 2 sources mentioned
3 = 3 sources mentioned
4 = 4 sources mentioned
5 = 5 sources mentioned

Problems arose because while the interviewers could list any and all of the people or institutions mentioned by the respondents, and at the same time code accordingly, they had difficulty in transferring the same information into other codes provided in question #2, which was as follows:

#2. What are they? (Transfer Letter of name mentioned above to corresponding blank below and code accordingly)

	Family Member	Relative/Kin	Close Friend	Neighbor	Acquaintance	Colleague	Stranger
___ 1 Priv. practioner	1	2	3	4	5	6	7
___ 2 Gov't off./emp.	1	2	3	4	5	6	7
___ 3 Educator	1	2	3	4	5	6	7
___ 4 Priest/minister	1	2	3	4	5	6	7
___ 5 Businessman	1	2	3	4	5	6	7
___ 6 Landowner	1	2	3	4	5	6	7
___ 7 Farm owner-opr.	1	2	3	4	5	6	7
___ 8 Farmer-tenant	1	2	3	4	5	6	7
___ 9 Fisherman	1	2	3	4	5	6	7
___10 Other:	1	2	3	4	5	6	7

The basic problem was that in some cases one category would receive more than one answer, and an acceptable code must insure that any response will fit into only one category. Question #2 did not always work that way, and therefore, in the final coding some data listed in Question #1 were lost.

Another problem question in the same area was question #22, which was as follows:

#22. When it comes to receiving worthwhile, accurate INFORMATION THAT HELPS TO MAKE A BETTER LIFE FOR YOU AND YOUR FAMILY, who do you think is the most valuable source of information? (Code Below)

_____

#23. the second most valuable source?

_____

#24. the third most valuable source?

_____

	(22)	(23)	(24)
Family member	1	1	1
Relative/kin	2	2	2
Close friend	3	3	3
Neighbor	4	4	4
Acquaintance	5	5	5
Priv. practitioner	6	6	6
Gov't official/emp.	7	7	7
Educator	8	8	8
Priest/minister	9	9	9
Businessman	10	10	10
Landowner	11	11	11
Farm owner-operator	12	12	12
Farmer-tenant	13	13	13
Fisherman	14	14	14
Other	15	15	15

The phase "that helps to make a better life for you and your family" was deliberately vague and was meant as an unstructured question. Therefore, it was not a surprise to receive vague answers, too.

In the area of opinion leadership, a similar problem arose. The problem question was question #8, which was as follows:

#8. Can you recall anyone who offered you any suggestions or recommendation concering CITIZENSHIP RIGHTS AND RESPONSIBILITIES?

1 Yes
2 No (Skip to Q. #15)

#9. If yes, who was it?	(9)	(11)
Private practitioner	1	1
Political leader	2	2

Civil service specialist	3	3
Public health official	4	4
Education specialist	5	5
Priest/minister	6	6
Businessman/salesman	7	7
Landowner/owner-operator	8	8
Expd. farmer/fisherman	9	9
Other	10	10

Question #9 as a follow-up question was felt to be of little help because "recommendations concerning citizenship rights and responsibilities" apparently are seldom thought of by adult Filipinos in concrete terms. Of course, they could remember their teachers as the opinion leaders when they were still taking courses on civics, government, etc. in their younger days, but the issue seemed unimportant now.

In the area of innovativeness, the problem question was question #1, which was as follows (and some follow-up questions):

#1. In any place, usually there is someone who is always first to try out new things or new ways of doing things. In this community, is there anyone who is always first to try out new things or new ways of doing things?

1 Yes
2 No
3 Don't know

#2. If there is anyone, is he one of the "big people" or the "little people?"

1 Big people
2 Little people

#3. What is his occupation?

1 Private practitioner
2 Gov't official/employee
3 Educator
4 Priest/minister
5 Businessman:
6 Landowner
7 Farm owner-operator
8 Farmer-tenant
9 Fisherman
10 Other:

#4. Why do you think he is always the first one to try out new things or new ways of doing things in this community?

What probably gave difficulty to the interviewing situation was that for most respondents, it was perhaps the first time that they were asked such a question; and when they were further asked as to whether the innovator was one the "big people" or the "little people," some respondents could not actually categorize the innovator in either group.

Background of Respondents

Almost one-half of the respondents were from 45 to 59 years old. About two-fifths were from 30 to 44 years old. The minority was split between those who were 20-29 years old and those who were 60 or above. Ninety percent of the respondents had lived in their communities for ten years or more. Seven percent had been in their community from three to nine years. Of the twenty-eight respondents who had resided in their communities for less than three years, 17 migrated from another municipality or city of the same province, nine came from another province, and 2 moved from another barrio of the same municipality or city. All of these data indicate a low degree of migratory activity in the area.

Nine out of ten respondents were married. The rest were either single or widowed. Three had some other marital status. Of those who had families, 40% had from 4 to 6 children, 27% had 7 or more children, and 21% had two or three children. Only 40 cases had one child and 31 had none. Therefore, the "average" family was large. Consistent in this finding, the age range between the youngest and oldest dependent children of more than one-half of the respondents was found to be 10 years or more. One fourth of the cases had the range of six to nine years for their youngest and oldest children. Sixty-nine respondents had the range of three to five years, while 35 cases had a range of one to two years. There were only two respondents whose children were spaced less than one year between the youngest and the oldest. Seventy percent of the respondents did not have any other dependents. A decreasing number of respondents had one other dependent (14%), two to three other dependents (10%), four to six other dependents (3%), and seven or more other dependents (2%). Most of these dependents were either parents, nephews or other relatives. There were also some siblings or cousins who were staying in the households of some respondents. All of these data provide evidence consistent with extended family procedures.

More than half of the respondents did not go beyond elementary school. There were more college graduates (20%) than high school graduates (15%) among the respondents, indicating that most of those who graduated from high school went on to college. Four percent had gone to graduate school, while 28% had received vocational training.

The range of occupations of the respondents is virtually representative of all occupational groups in the Philippines, as may be seen from the following list:

Farmers and tenants	122
Businessmen	88
Government official and employees	81
Farm owners and operators	72
Educators	36
Private practitioners (M. D. 's, lawyers)	27
Landowners	20
Fishermen	13
Priests and ministers	5
Others	137

Seventy-two percent of the repondents had been engaged in their respective occupations for 10 years or more, 22% from three to nine years, and 6% for two years or less.

Summary and Conclusions

This report is concerned with the problem of communicating effectively with people in developing countries. Seven Tagalog-speaking provinces on the island of Luzon, Republic of the Philippines served as the site of the study. Work began with a base line survey aimed at identifing interpersonal sources of information, opinion leaders, and innovators. Data concerning exposure to mass media were also collected.

A stratified random sample of five villages was selected from each of three successive levels of economic development. Within each of the 15 communities, 40 people were interviewed from each of two socio-economic classes: 20 high status people and 20 people of lower status. Ten members of each socio-economic status group were selected from a poblacion (a population center) and ten from a nearby barrio (hamlet) located at least three kilometers from the poblacion. In this manner it was possible to study communication patterns as a function of level of development, socio-economic status, and place of residence. Insofar as practical circumstances permitted, the choice of communities and people was entirely random.

On the whole, most respondents were friendly and cooperative. Further, they could answer most, if not all, questions. A few questions caused problems, however, and these are discussed in the chapter. Based upon population statistics, there was a variety of subjects interviewed which appeared to be representative of the changing Philippines. In the communities themselves, one especially interesting point was that in the survey area there was ample evidence of strong government activity aimed at community development. The impact that these groups had can be seen in the next chapter.

CHAPTER II. REVIEW OF SURVEY RESULTS

This chapter presents a summary of major findings of the base line survey described in detail in the previous chapter. No attempt is made to provide complete backup data for each specific conclusion since it is felt that such an approach leads to prolification of tables, charts, and graphs, which, when taken collectively, can obscure major points one wishes to make. The alternative presented here is to present general conclusions along with a few tables of data to illustrate how these data were analyzed and how conclusions were drawn. The reader can assume that remaining results were analyzed and interpreted in similar, or identical, fashion.

In order to relate these findings to those of previous investigations, the chapter subheadings are organized in a manner analogous to a review of the literature written by Parco and McKendry (1967). Therefore, concern is centered about the topic of directed social change and the role that mass and interpersonal communications play in it. Each subheading starts with a summary of past work followed by a presentation of findings of the present study. Topics discussed include the following: identification of important interpersonal information services; opinion leadership; receptivity to mass media; and participation in social clubs. In each case attention is paid to the impact of each of the three main variables under consideration: the level of development of the community in which one resides; the socio-economic status of the respondent; and his place of residence, i.e., whether one lived in the more urban poblacion or in one of the nearby more rural barrios.

In reviewing the material, the reader is reminded that the present study focused upon areas undergoing social change -- poblacions as opposed to isolated barrios. Therefore, findings can be expected to vary as a function of this factor; or, in other words, what may be true for traditional people may not be true for transitional people. To determine if such a difference existed was a major point in the present investigation. If important differences in communications patterns were noted, one could conclude that it can be dangerous to extrapolate results from rural case studies too far. By the same token, if both types of studies are reviewed collectively at the cost of reduced simplicity, one may hopefully gain a more balanced view of the developing Philippines.

Mass Media Exposure

Results of the present survey leave little doubt that such factors as increased rural electrification and the presence of inexpensive transistor radios have had substantial impact upon the number of radio listeners available. Contrasted with the comparatively low figures obtained in mid-1950 surveys, ninety-two percent of all respondents reported that they listened to the radio. Most listened on a daily basis as well, which means that the bulk of the audience could be classified as regular listeners.

What was especially interesting, however, was the substantial exposure to printed materials. Seventy-three percent of the sample reported that they read newspapers, sixty-five percent reported reading magazines, and fifty-three percent read comics. Even posters which heretofore have appeared to have comparatively little impact were read by thirty-five percent of the sample, while twenty-six percent reported reading pamphlets. These data indicate that exposure to all types of printed material is on the upswing, although in the case of newspaper and magazine reading, the frequency of exposure tends to be on a once-a-week basis as opposed to daily radio listening.

Such factors as how often one exposed himself to various media, what types of message contents and formats were preferred, etc., were found to vary as a function of characteristics of the target audience. Table 1 illustrates one of a set of analysis of variance comparisons which were computed in accordance with the design explained in Chapter I. This particular table dealt with analysis of whether or not people listened to the radio. Even though the basic data were binary (yes - no) in format, since averages were taken over each of sixty subgroups (each of whom had ten or eleven respondents), to a real extent the variable being analyzed represents the number in each group who reported that they listened to the radio.*

*Actually, to compensate for the fact that the number of subjects varied slightly, an average score was finished for the n subjects in each subgroup.

Table 1. Results of Analysis of Variance on Radio Listening Data

	df	ms	F	P
Between Communities:				
Level of Development (A)	2	.093327	3.335	--
Error	12	.02798	--	
Within Communities				
Place of Residence (B)	1	.032667	5.162	P < .05
Socio-economic Status (C)	1	.001307	1 <	--
A X B	2	.066667	10.532	P < .01
A X C	2	.010107	1.597	--
B X C	1	.029926	4.728	P < .05
A X B X C	2	.031927	5.044	P < .05
Error	36	.00633	--	

From the findings of the analysis shown in Table 1, a number of conclusions can be drawn. First, the general mean indicated that most people listened to the radio. Second, the nature of the impact of place of residence was that fewer poblacion residents listened to the radio than barrio residents. Third, the significant place of residence by level of development interaction was caused by the fact that in communities having an above average level of development, more barrio residents reported that they listened to the radio than poblacion residents; this trend was not repeated in the case of communities of average and below average levels (nor was it reversed either). The fourth significant result dealt with the interaction between socio-economic status and place of residence. In the case of poblacion residents, fewer people of higher status listened to the radio than was the case for people of lower status. For barrio residents, the reverse was true. Analyses of data regarding the frequency with which one listened to the radio showed only one significant effect. Here, poblacion residents were found to listen to the radio more frequently then barrio residents.

One interpretation of these findings is that they substantiate a conclusion drawn in the review of the literature report, namely that the impact of radio diminishes as competition from other media increases. The logic behind this conclusion is that printed material would be much more accessible in the poblacion than in the barrio. Further, people of higher social status would presumably have more exposure to written material. Both of these assumptions appear reasonable in view of past research and an analysis of data from the communities sampled. Additional substantiation of this conclusion can be noted from a review of data concerning newspaper and magazine reading. In the case of newspaper reading, both place of residence and socio-economic status had substantial impact ($F = 122.775$, $P < .001$ and $F = 48.018$, $P < .001$ respectively). No interactions were significant. Consistent with the above line of reasoning, more poblacion residents read newspapers than barrio residents, and more people of high socio-economic status were newspaper readers than was the case for people of lower status. In the case of reported frequency of newspaper reading, the general mean indicates that newspapers tend to be read on a weekly basis. Again there was sizable variation attributable to one's place of residence. Poblacion residents tended to fall between weekly and daily readership, while barrio residents tended to read newspapers less than three times a month ($F = 49.867$, $P < .001$). A similar discrepancy was found between the two socio-economic levels ($F = 23.389$, $P < .001$). Also, a borderline but not significant effect was associated with level of development ($P \simeq .07$). As one might expect, the higher level of development, the greater the frequency of newspaper reading. Magazine reading data showed a similar trend. More poblacion residents read magazines than barrio residents and more people of higher social status were magazine readers than those of lower social status. ($F = 19.214$, $P < .01$ and $F = 9.795$, $P < .01$ respectively). No significant differences were found in the analysis of the frequency with which people read magazines. In view of these data, the above mentioned conclusion appears justified.

One final point is indicated by the data, namely that it is much easier to reach people of higher social status via mass media than people of lower status. When the radio is the major medium available, as is the case in the barrio, people of higher status listen to it more often. As more printed material becomes available, people of high status exhibit a slight but not serious

drop in radio listening and a marked increase in newspaper and magazine reading. The same conclusion holds for poblacion as opposed to barrio residents.

Those data have serious implications for planned social change, for they point out that reaching the rural populus is no easy affair. Although some "spread of effect" can be expected by the rural residents' tendency to listen for news "from the city," it should be clear that receipt of news in this fashion could be a hit-or-miss affair depending upon idiosyncratic factors such as the fidelity and selectivity of the human transducer such as peddlers, busdrivers, etc. Therefore, information concerning interpersonal sources of communications becomes important.

Tables 2 and 3 provide unadjusted exposure data to substantiate the differences in mass media exposure as a function of the respondents place of residence and his socio-economic status. The only exceptions to the general conclusions drawn above were that in the case of radio listening, barrio residents had higher exposure percentages than poblacion residents, and people of average status read comics more often than people of high status.

In contrast to these rather clear-cut results, the impact of level of development appears to be more subtle (see Table 4). Radio listening exposure decreases as level of development increases, while newspaper and magazine exposure rates increase with higher development levels. The same increased exposure tendency that exists for magazines and newspapers holds for posters and pamphlets as well, while exposure to comics appears unrelated to the development variable.

An example of what implications such data have to communications programs is provided in Chapter III. Further relevant data are introduced there.

Table 2. Unadjusted Exposure Percentages for Various Mass Media as a Function of the Respondent's Place of Residence

Place of Residence	Radio	News-papers	Magazines	Comics	Posters	Pamphlets	Total Number of Respondents
Poblacion	92%	90%	81%	63%	41%	37%	294
Barrio	97%	59%	50%	45%	30%	17%	312

Table 3. Unadjusted Exposure Percentages for Various Mass Media as a Function of the Respondents Social Class

Socio-economic Status	Radio	News-papers	Magazines	Comics	Posters	Pamphlets	Total Number of Residents
High	94%	84%	77%	50%	40%	36%	300
Average	95%	64%	54%	56%	31%	18%	306

Table 4. Unadjusted Exposure Percentages for Various Mass Media as a Function of the Level of Development of the Community

Level of Development	Radio	News-papers	Magazines	Comics	Posters	Pamphlets	Total Number of Respondents
Above Average	86%	78%	70%	58%	40%	30%	203
Average	98%	73%	67%	50%	36%	30%	201
Below Average	99%	70%	58%	52%	30%	22%	202

Interpersonal Communications

There are two aspects of interpersonal communications which should be considered. The first is who is perceived as a good source of information about various matters. Five topic areas were covered in the survey: who was a good general source of information; who was a good source of information concerning agricultural or fishing matters; who was a good source of information on matters of health and sanitation; who was a good source of information concerning citizens rights and responsibilities; and a loosely phrased question concerning who was the best source of information about how to make "a better life" for one's self and family. Respondents named specific individuals. Later, these were coded into the following ten topic codes: (1) private practitioners (M. D.'s, LLB's, etc.); (2) government officials or employees; (3) educators (teachers or school principals); (4) priests or ministers; (5) businessmen; (6) landowners; (7) farm owners or operators; (8) tenant farmers; (9) fishermen; and (11) miscellaneous sources.

On the basis of previous research, numerous interpersonal sources of information were mentioned for rural residents with particular emphasis being placed upon friends, neighbors, etc. Data in Table 5 show clearly that this was not the case for our "transitional" sample, i. e., people in the process of experiencing rural to urban social change. The most startling surprises can be summarized as follows.

First, priests and ministers, educators, landlords, and businessmen were seldom mentioned as a major source for any kind of information.

Second, neighbors in the form of farm owners, tenants and fishermen were perceived as good sources of agricultural and fishing information by less than 15% of the sample.

Third, government officials and employees in all cases were perceived as the best source of information,usually by more than two-thirds of the sample.

Fourth, even in the case of supplying answers to the vaguely worded question regarding information concerning a "better life for one's family," government officials and employers were the most frequently mentioned source. A more detailed examination of protocols showed that in most cases, reference was made to community development and rural health specialists who were very

Table 5. Frequency With Which Various Interpersonal Sources of Information Were Rated as Being Best by All Respondents for Various Topics

Information Source	Gen. Source	Agr/Fish	Health and Sanitation	Better Life
Private Practitioner	14 (2.68%)	3 (.57%)	25 (4.27%)	23 (6.73%)
Gov't Official or Employee	389 (74.38%)	335 (63.81%)	444 (75.77%)	142 (41.52%)
Educator	14 (2.68%)	5 (.95%)	24 (4.10%)	11 (3.22%)
Priest/Minister	4 (0.76%)	1 (.19%)	0 (--%)	23 (6.73%)
Businessman	14 (2.68%)	17 (3.24%)	2 (.34%)	14 (4.09%)
Landowner	12 (2.29%)	22 (4.19%)	3 (.51%)	14 (4.09%)
Farm owner/operator	11 (2.10%)	26 (4.95%)	13 (2.22%)	15 (4.39%)
Farmer - tenant	16 (3.06%)	21 (4.00%)	15 (2.55%)	18 (5.26%)
Fisherman	0 (--%)	18 (3.43%)	0 (--%)	1 (0.29%)
Other	49 (9.37%)	77 (14.67%)	60 (10.24%)	81 (23.68%)
Totals	523 (100.00%)	525 (100.00%)	586 (100.00%)	342 (100.00%)

active in the area (see Chapter I). Therefore, the economic orientation of the sample seems to be a strong one -- a finding consistent with earlier research by the authors (McKendry, McKendry, and Guthrie (1967).

In summary, there appears to be little doubt of a shift in perceptions regarding useful sources of information. Evidently, the shift toward a more materialistic set of values such as the process described by McKendry, et al., (1967) leads people to focus upon means of accomplishing further development. The fact that such great reliance is placed upon government development workers indicates rather clearly that the government's program, which has been accelerated by President Marcos, is having a substantial and sizable impact.

The trend described above was little affected by one's socio-economic status, place of residence, r level of development experienced. Further, a survey of the second aspect of interpersonal communications--who is perceived as an opinion leader--yielded highly similar results. What differences did appear were sufficiently minor to be overlooked in view of the strong basic trend shown.

Interpersonal Communications Exposure

One key feature concerning the potential impact of interpersonal sources of information is the frequency of contact members of the target audience have with their most valued source. An analysis of data for the most highly valued general source of information was computed. Similar analyses were conducted for the most valued sources of information concerning agricultural and fishing practices, matters of sanitation and health, and problems of citizens' rights and responsibilities. All analyses showed the same results. Residents of the barrios had more frequent contact with their most important interpersonal sources of information than did residents of the poblacions. Further, this discrepancy increased as the level of development of the community increased.

Undoubtedly, the factor of community size was important here; for, in a large city, it is more difficult to see any one person than is the case in the barrio where a more personalized approach is used. Balanced against this finding, however, is the fact that poblacion residents named more interpersonal information sources than did barrio residents. The same was true for people of high socio-economic status. Therefore, while the contact per (information source) individual is less for poblacion residents, the number of persons with whom they have contact was greater by roughly 15%.

While exposure to an interpersonal source is a basic requirement for effective communications, it is not sufficient by itself. One other factor which needs to be considered is the receptivity of the target audience. An indication of this was obtained in the survey by having residents recall specific events where useful information was received from the sources in the topic areas listed previously. Results can be summarized as follows: First, respondents seem most receptive to information concerning matters of health and sanitation. (How much this result was influenced by the sizable number of rural health units operating in the area is uncertain.) Second, barrio and poblacion residents appear to be equally receptive. Third, people of higher socio-economic status recalled substantially more occasions where valuable information was received than was the case for people of lower status. Finally, the higher the level of development experienced, the greater the receptivity of interpersonal sources of information.

One final point worthy of mention is the potential of using formal organizations as a source of influence. When queried concerning membership in such organizations, 80.1% of the high socio-economic status group were found to hold such memberships, and 16% of them attended weekly meetings. For people of lower status, only 41.5% were members of such organizations and 12.6% attended weekly. As might be expected, poblacion residents were more frequent members, 68.2% vs. 53 4%, of formal organizations than was the case for barrio residents. Further, they attended meetings more regularly (21.4% vs. 8.05%). Thus, it would appear that interpersonal contact in the poblacion could be amplified by the use of such organizations. This would compensate in part for the less frequent contacts with valued sources than is the case in the barrio.

CONCLUSIONS

The present survey showed some interesting divergence of findings from those anticipated by a review of past research. Some of this can be explained as a function of changes over time (see item one especially). Others are more plausibly attributed to the fact that in this study the sample of interviewees represented a section of the Filipino population which is experiencing change from a rural to an urban environment as opposed to focusing upon the traditional, rural population per se. Undoubtedly, other differences can be attributed to some combination of these factors.

(1) The mass media exposure index for the transitional population studied was greater than ninety percent for radio; it was also greater than seventy percent for newspapers and sixty percent for magazines. One third of the sample had been exposed to posters, one quarter to pamphlets, and one half to comics. Frequency of exposure followed the same general pattern, being on a daily basis for the radio, a weekly basis for newspapers and magazines and a less frequent basis for remaining methods of mass media presentation.

(2) One's place of residence and socio-economic status was found to have considerable impact upon the nature of mass media exposure. This was especially discernible in the case of printed media where poblacion residents had greater exposure indices than barrio residents and people of high socio-economic status had higher exposure indices than people of lower status. These differences appear largely understandable in terms of proximity to and ability to purchase (and read and comprehend) printed materials.

(3) There was evidence available to support the contention that the impact of radio as a source of information diminishes as competition between media increases.

(4) In general, the higher one's socio-economic status and the more urban and more highly developed his place of residence, the easier it is to reach him using mass media.

(5) As for interpersonal sources of information, results did not follow expectations gained from prior research. Priests and ministers, educators, landowners and businessmen were seldom mentioned as a major source of any

kind of information. More surprisingly, neighbors, in the form of farm owners or tenants and fishermen were perceived as good sources of agricultural and fishing information by less than fifteen percent of the sample.

(6) Government officials and employees were perceived as the best source of information about almost everything, usually by more than two-thirds of the sample. This result is probably best explained in terms of the sizable rural development effort underway in the Tagalog speaking provinces. There appears to be little doubt that government workers have had a substantial impact upon the people several orders of magnitude greater than similar programs in the U.S. Implications for U.S. sponsored developmental assistance programs, be they at home or abroad, should be obvious.

(7) The more rural the resident, the greater his frequency of exposure to his most highly valued source. Further, this discrepancy increased as the level of development of the community increased. Counteracting this trend, however, was a discernible tendancy for poblacion residents to specify a greater number of interpersonal communications sources than was the case for barrio residents.

(8) Evidence of receptivity to interpersonal sources of communication increased with socio-economic status and the level of development experienced.

(9) Formal organizations would appear to offer considerable potential for help in programs of directed social change. This is especially true if one wishes to reach more urban, prosperous people.

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CHAPTER III. ILLUSTRATIVE APPLICATIONS OF RESULTS TO FIELD PROBLEMS

The orientation of the work was to perform research and gather data which could be used to assist people presented with applied communications problems in developing countries. The purpose of this chapter is to indicate how much of this potential goal has been realized during a single year of work. Since applied problems usually have enough situation specific limitations to make presentation of a general solution risky at such an early stage of theoretical development, examples will be used to illustrate practical implications of the present study.

The case to be considered is one of instituting planned social change aimed at raising the level of development of a region. Within such a problem context, communications specialists must insure that selected items of information get to members of the target audience. For example, farmers whose behavior one wishes to change must learn something about a new insecticide; village residents should hear about health and sanitation and birth control techniques; all people should be cognizant of educational assistance opportunities, etc. The immediate problem confronting the communications specialist is that given limited resources, largely in the areas of money and time; he must determine the most effective communication techniques available to him. Usually, because of a lack of necessary data and techniques available to provide a deterministic solution, such decisions are made by use of a "best guess" or "hunch." The result is a hit-and-miss record which is difficult to assess in any other fashion than "sometimes one is lucky and sometimes he isn't." An unfortunate organizational correlate is that under these conditions research budgets get reduced over time, and the guessing situation is prolonged indefinitely.

This chapter illustrates ways in which such decisions can be made on a more rational basis. One sample situation concerns selecting an appropriate mass medium by which to present information. The second concerns guidelines concerning the use of potential interpersonal sources of communication. The data employed were gathered in the Philippines. Although the same procedures could undoubtedly be used in other developing countries, the precise solutions would undoubtedly change as statistical parameters shifted.

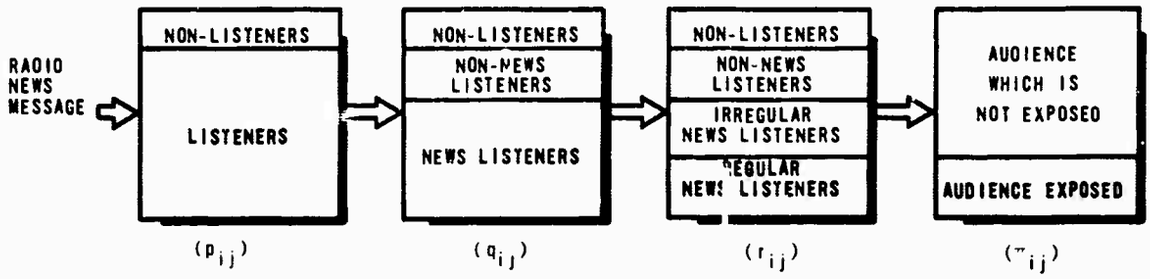
Mass Media Effectiveness

Reason dictates that before information can have any impact at all, it has to be received. Therefore, exposure to a mass medium becomes a necessary condition for effective communications sent via that medium. At the same time it should be recognized that determining just what constitutes exposure is not a simple matter since the target audience may ignore the message or fail to act upon it. Therefore, while one should start analysis with simple exposure data, the process should not stop there. Some illustrative data will show why this is true.

Assume that the communications specialist has some information to impart which can be presented in the form of a news bulletin. Sample cases include citing results of farmers' yields on demonstration plots, releasing results of an analysis of a community development program concerning health and sanitation, etc. In such cases it is reasonably certain that the item could be presented as part of radio news broadcasts, as a story in a newspaper, or as a magazine article. The problem then becomes one of determining how much of the target audience one can reach by use of various media.

The way in which the communications specialist determines what portion of the target audience he can reasonably expect to reach is shown in Figure 1 for the case of a radio news broadcast. First, he can reach only those people who listen to the radio (92% of the population in the example cited in Figure 1). Second, if he is using a news bulletin as a means of communication, he can reach only that portion of listeners who selectively expose themselves to news broadcasts, i.e., those listeners who prefer to listen to news. Third, if he is dealing with a single news bulletin, it is doubtful that he can have it presented for more than one day; therefore, he can expect to reach only that group of listeners who prefer news and listen to the radio every day (along with some difficult to estimate proportion of more irregular news listeners.

These three requirements tend to reduce substantially the size of the target audience likely to be exposed (the adjusted exposure index) to a single news broadcast. Further, depending upon the criterion, the choice of the best available medium is likely to vary, i.e., simple exposure, selective exposure, or adjusted exposure. This point can be made more clearly by use of an illustration. To make the case more interesting, actual field data are used.



NOTE: (SHADED AREAS REPRESENT WHAT IS MEANT BY THE TERMS AND SYMBOLS INVOLVED.)

FIG. 1 ILLUSTRATION OF THE PROCESS BY WHICH ADJUSTED EXPOSURE INDICES ARE DERIVED

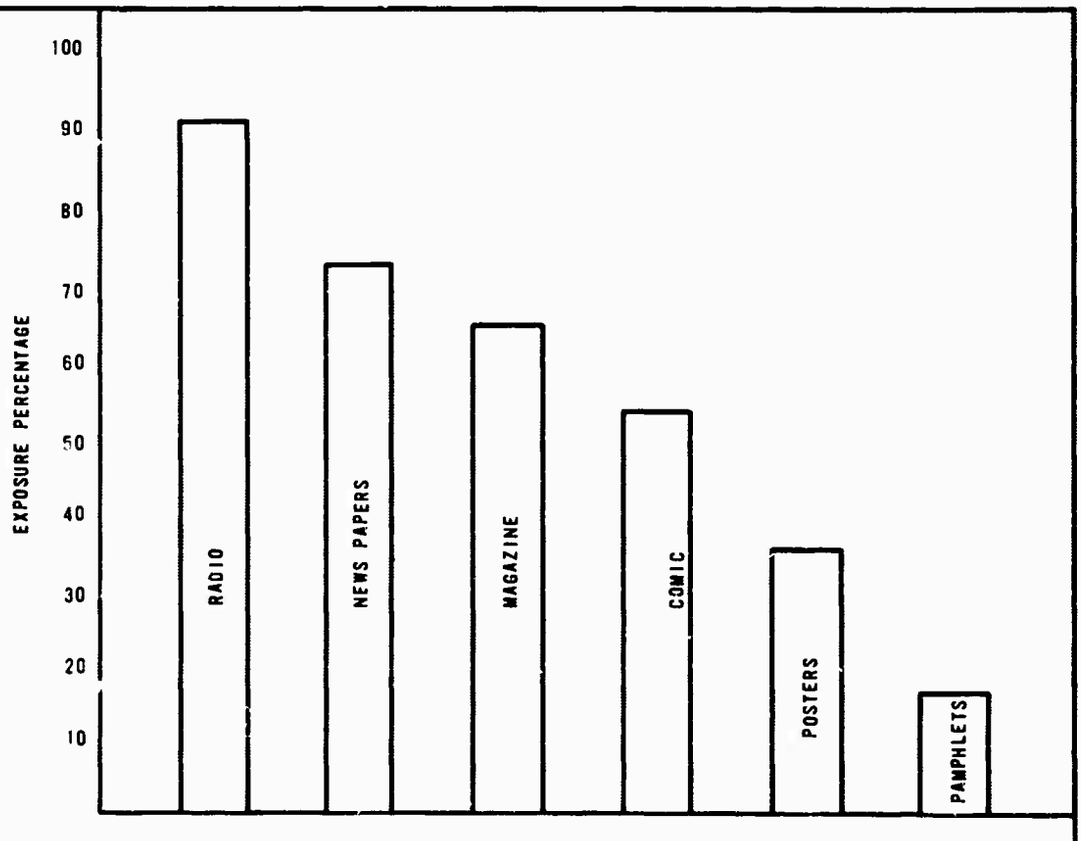


FIG. 2 UNADJUSTED EXPOSURE RATES FOR VARIOUS MASS MEDIA IN THE TAGALOG-SPEAKING REGION OF THE PHILIPPINES

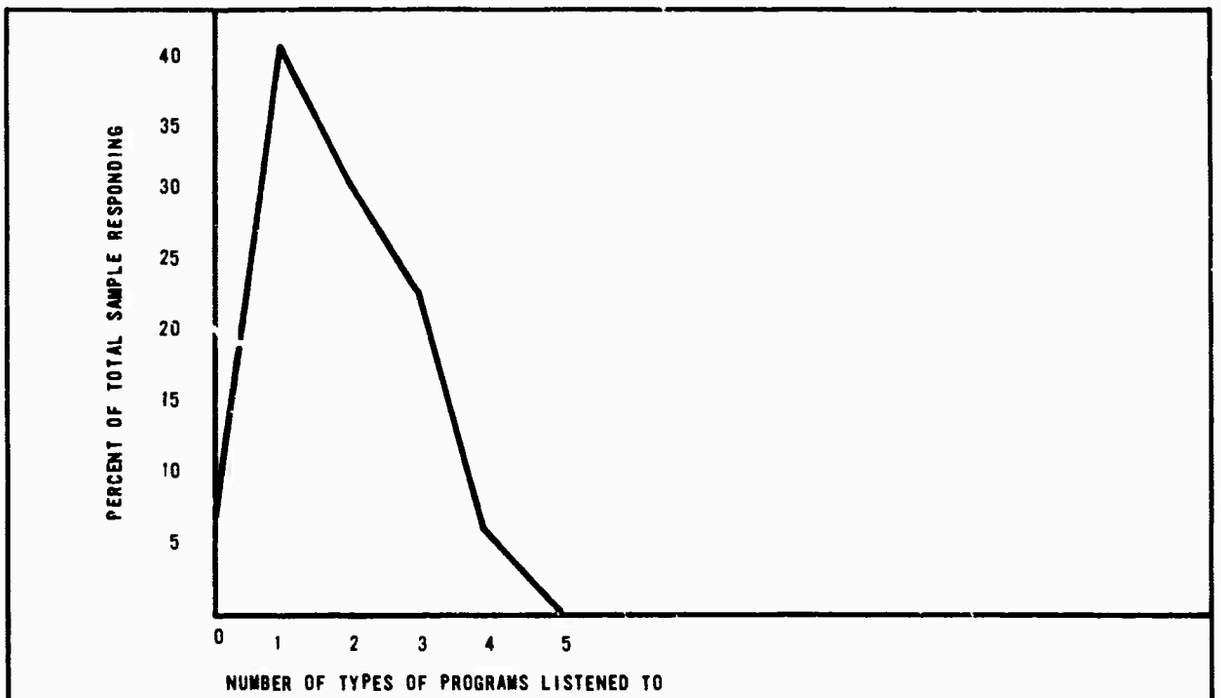


FIG. 3 ILLUSTRATION OF THE MULTIPURPOSE FUNCTION OF RADIO LISTENING

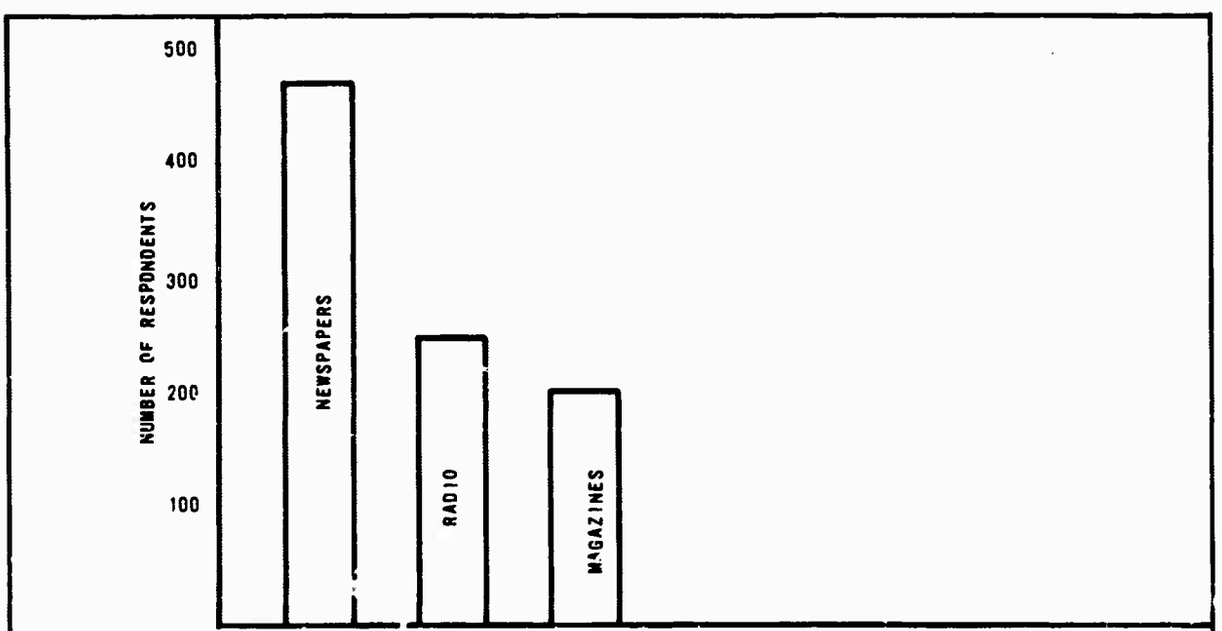


FIG. 4 ILLUSTRATION OF THE MANNER IN WHICH RESPONDENTS PREFERRED TO EXPOSE THEMSELVES SELECTIVELY TO THE NEWS PORTION OF A PARTICULAR MEDIUM

Simple exposure data from the Philippine survey are shown in Figure 2, which shows that for people in the Tagalog-speaking region of the Philippines, in general, more than 90% can be potentially reached by radio, more than 70% by newspaper, more than 60% by magazines, more than 50% by comics, more than 30% by posters, and more than 20% by pamphlets. From these data, it is apparent that radio has the highest simple exposure.

The problem, however, is that people listen to the radio for many reasons. Figure 3 shows this fact rather clearly. Besides news broadcasts, people listen to music, dramas, sports broadcasts, etc. These latter programs serve the purpose of providing entertainment as opposed to providing a source of news. Obviously, the two purposes can conflict with the result that news is not assimilated. In other words, members of the target audience, by their own actions, selectively expose themselves to messages carried by a medium. When this factor is taken into account, the question becomes one of selecting a medium by which it is possible to reach the maximal number of members of the target audience, given selective exposure of its members.

Data relevant to this more specific criterion are shown graphically in Figure 4. All 606 respondents in the survey were queried concerning what types of radio programs they preferred to listen to, what sections of newspaper and magazines they preferred to read, etc. In the case of newspapers and magazines it was also determined if they preferred to read editorials and columns--other places where news can be presented. Thus, when one considers the combined news carrying selective exposure potential of the three media having the highest general exposure, the result is that newspapers appear to be a clear first choice with little difference appearing between radio and magazine presentations. In other words, if the specialist reviewed these data, he would reverse the decision made after reviewing simple exposure data. Even in this case, however, it is likely that his decision would be premature.

Not only does the problem of determining the proportion of the target audience regularly exposed to the medium arise, but other considerations need to be taken into account as well. One additional problem which might confront the communications specialist is his need to decide whether it would be better to present the news in the Tagalog dialect or in English--both of which are official languages in the Philippines. Here, one would be wise to compute adjusted

news exposure indices for a series of separate groups. This can be done by use of equation 1 below*

$$\epsilon = f(e_p, e_r, e_n) \qquad (1)$$

where ϵ is the adjusted news exposure index

e_p = the simple exposure of each medium

e_r = the regular exposure of the medium

e_n = the selective news exposure of the medium

This exposure index can take on more meaning if it is presented in terms of the proportion of the target audience reached (π_{ij}). Thus, a second equation analogous to the first can be written as follows:

$$\pi_{ij} = p_{ij} \times q_{ij} \times r_{ij} \qquad (2)$$

where π_{ij} = the adjusted estimate of the maximum portion of the ith target audience that can be reached via a news bulletin in the jth medium

p_{ij} = the proportion of the ith target audience which is exposed to the jth medium in general

q_{ij} = the proportion of the ith target audience (exposed to the jth medium in general) which is likely to be exposed to the jth medium while the news item is being transmitted.

and r_{ij} = the proportion of the ith target audience (exposed to the jth medium in general and who selectively expose themselves to the news presentation portion of information carried via the jth medium.**

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* The reason for the e_r term is that one cannot present the same news bulletin indefinitely since news is a highly perishable item.

** Obviously, this is a contingent probability expression where one computes the likelihood of a joint set of circumstances, given the prior occurrence of other events.

Obviously, separate π_{ij} values can be computed for English language and Tagalog dialect presentations. When this was done using results from the entire sample of 696 cases, the data presented in Table I resulted. Apparently, as a general rule, if one were restricted to a single choice, best exposure results would be obtained by using Tagalog radio broadcasts (.171 or 17.1% of the target audience) followed by Tagalog newspapers (6.4% of the target audience).

However, assume that there is an interest in residents of poblacions as opposed to those of the barrio, with some side interest in reaching people of high socio-economic status. It would then be necessary to compile further data of the type shown in Table II which contrasts relevant figures of radio and newspapers. When these data were inserted into equation 2, the results shown in Table 3 were obtained. From a review of the data, a number of conclusions can be drawn. First, using English language broadcasts to reach barrio residents and people of average or lower status would be highly ineffective. Further, use of English newspapers in attempts to communicate with the same population would be equally foolhardy. Second, use of English language newspapers to reach poblacion residents and people of high socio-economic status appears to be a good possibility. Third, using Tagalog news broadcasts seems to be a safe bet for all groups since approximately 20% of our target audience can potentially be reached via this medium. Finally, when one considers that news carried by newspapers is less perishable than news broadcasts, and can form the basis for magazine articles, editorials, and material for columnists as well, it would appear especially profitable to employ English language newspaper items -- especially if one were interested in reaching poblacion residents of high social status.

Similar calculations could be made to determine the maximally effective mixture of mass media needed to reach the greatest proportion of the target audience. Cost data could also be incorporated to produce cost-effectiveness ratios if one wished. The only major complication would be the need to take account of the proportion of the target audience which is likely to expose itself to more than one mass medium on a regular basis. The above computations should serve to illustrate the point that decisions as to which medium or media mix has the greatest potential exposure can be made on more than an impressionistic basis. What also needs to be considered, however, is the likelihood that the message will be judged to be credible once received, or, even more importantly, that attitudes or behavior are likely to be affected by it. Such questions

TABLE 1 PROPORTION OF TARGET AUDIENCE LIKELY TO BE REACHED INITIALLY BY USING RADIO NEWS BROADCASTS, NEWSPAPER, AND MAGAZINE STORIES

	RADIO	NEWSPAPER	MAGAZINE
TAGALOG	.171	.064	.019
ENGLISH	.032	.033	.012

TABLE 2 DATA RELEVANT TO COMPUTATION OF ESTIMATED MAXIMAL EXPOSURE PROPORTIONS FOR DIFFERENT TARGET AUDIENCES USING TWO DIFFERENT MEDIA AND TWO SEPARATE TYPES OF LANGUAGE BROADCASTS

PROPORTION OF TARGET AUDIENCE:		BARRIO RESIDENTS	POBLACION RESIDENTS	HIGH STATUS	AVERAGE STATUS
RADIO	PRIMARY EXPOSURE	97	92	94	95
	REGULAR EXPOSURE	75	77	77	73
	NEWS EXPOSURE	37	46	42	40
	TAGALOG DIALECT PREFERENCE	76	53	57	81
	ENGLISH	03	35	33	13
NEWSPAPER	PRIMARY EXPOSURE	59	90	84	64
	REGULAR EXPOSURE	14	56	50	20
	NEWS EXPOSURE	48	55	54	49
	TAGALOG DIALECT PREFERENCE	36	17	23	31
	ENGLISH PREFERENCE	23	73	62	33

TABLE 3 MAXIMAL PROPORTION OF TARGET AUDIENCE LIKELY TO BE REACHED INITIALLY BY USING TWO DIFFERENT MEDIA AND TWO SEPARATE LANGUAGE PRESENTATIONS FOR FOUR DIFFERENT TARGET AUDIENCES

		PLACE OF RESIDENCE		SOCIO-ECONOMIC STATUS	
		BARRIO	POBLACION	HIGH	AVERAGE
RADIO	TAGALOG	.230	.206	.214	.184
	ENGLISH	.010	.136	.125	.030
NEWSPAPER	TAGALOG	.011	.056	.039	.020
	ENGLISH	.017	.225	.166	.021

must eventually be consideredfor a complete treatment of the communications effectiveness problem.

Interpersonal Communications Effectiveness

As was shown clearly in a previous report in this same series, Parco and McKendry (1967), rural Philippine residents obtain a great deal of their information from interpersonal communications sources, i.e., from other people. As was noted in the previous chapter, the most frequently mentioned sources of information were government officials and civil service employees. These data were somewhat surprising considering past research which placed great emphasis on the vital role played by neighbors, other farmers and fisherman, etc. Also, the impact of clergymen and educators in disseminating information about most topics was shown to be negligible. Assuming that these data are accurate, it is obvious that no matter what the topic, the best way to disseminate information via interpersonal sources is to go through government agencies. The only question remaining is to determine how much of the target audience is likely to be reached this way.

To compute an estimate of the proportion of the target audience likely to be reached by use of interpersonal sources of information, three estimates are needed. All of these are analogous to the three presented in equation 2 (page 4) which dealt with mass media exposure indices. Here, π_{ij} becomes the adjusted estimate of the maximum proportion of the ith target audience that can be reached by spreading news via the jth interpersonal source of communication. For purposes of illustration we will consider responses to the question concerning who was reported to be a good source of information on matters of sanitation and health, and farming or fishing practices. Both of these matters are common concerns of someone interested in directed social change.

The first type of data needed is the p_i term, an estimate of the proportion of the ith target audience which is exposed to interpersonal sources of information. This was defined as that portion of the target audience which came under the opinion leadership of the jth (or any other interpersonal source). This estimate was derived from answers to the following type of question:

Can you recall anyone who offered you any suggestions or recommendations concerning agricultural or fishing practices and techniques? (Yes; No). If yes, who was it?

The second part of the above type of question provided another type of estimate, specifically r_{ij}, the proportion of the ith target audience which is likely to be influenced by the jth interpersonal source of information. The final term, q_{ij}, or the proportion of the ith target audience which is likely to be exposed to the jth interpersonal source while the news item is being transmitted, was assumed to be a function of the frequency of contact between members of the target audience and the jth interpersonal source. For purposes of this example, it was assumed that daily or weekly contact would suffice for contact on a "regular" basis, which, in turn, meant that a communications specialist could be reasonably well assured that the message got to some portion of the target audience before the news perished. Now, the question becomes one of determining how much of the target audience can be reached using the best available interpersonal sources of information--assuming that 100% of these individuals pass the information along to the target audience with perfect fidelity.

Results of the analysis along with the three basic types of data used in computing the adjusted exposure estimates are shown in Tables 5 and 6. Table 5 contains data concerning information about farming and fishing practices. Table 6 contains data concerning information about health and sanitation practices. The data themselves show a number of surprises. First of all, although past research indicates that the more rural the resident, the greater the dependence upon interpersonal communications sources, on matters of health and sanitation, one can potentially reach more poblacion residents than barrio residents using interpersonal sources. While this fact may not be too surprising, it is striking to note that on matters of agricultural and fishing practices, one can reach more people of high socio-economic status than people of lower status.

The second point shown by the data is that interpersonal sources of communication yield higher potential exposure measures in general than was the case for mass media. Finally, it would appear advantageous to increase the receptivity of people of lower socio-economic status in regard to receiving information concerning agricultural and fishing practices.

In summary, use of the computational process described so far substantiates a number of things uncovered in past research. It also uncovered a few surprises, however. In the next section, the data will be put to greater use by contrasting the effectiveness of mass media and interpersonal communications presentations.

Mass Versus Interpersonal Communications

In general, interpersonal communications exposure indices were higher than those for mass communications media. It should be noted, however, that these indices represent maximal exposure. To obtain this criterion, one must have 100% cooperation from the most highly valued sources. Further, the message must be relayed without altering its content. This second assumption of complete fidelity in message transmission is undoubtedly not true. Much research indicates that the greater the number of human relay stations, the greater the message distortion. Balanced against these points, however, is the fact that personal contact has been shown to be an important determinant in changing attitudes of rural Philippine residents (Parco and McKendry, 1967).

All of these points when combined with the adjusted exposure data presented so far serve to demonstrate that the task of the communications specialist is not a simple one when he attempts to get news to the target audience, in a short time. To begin, the best exposure index indicated that only about one-third of the target audience could hopefully be reached by any one approach. This fact indicates that in programs of planned social change multiple channels of communication should be used repeatedly if one wishes to reach the majority of members of the target audience.

While this finding may not be news to experienced personnel, it is interesting to note that maximally effective communications strategies would appear to vary as a function of the nature of the target audience and the message content one wishes to impart. For example, if one wished to communicate a message concerning agricultural and fishing practices to residents of barrios, he would fare best by using Tagalog radio broadcasts, with the next best option being the use of government employees and officials in the area. For residents of the poblacion, however, English language newspapers are the best choice followed by Tagalog broadcasts. Other examples are shown in Table 4. All assume the data cited previously to be accurate. While this may not be a reasonable assumption in all cases, the table should serve to illustrate the major point made above.

TABLE 4 ILLUSTRATION OF THE WAY THAT THE MAXIMAL EXPOSURE POTENTIAL OF A MESSAGE VARIES AS A FUNCTION OF THE MESSAGE CONTENT AND THE TARGET AUDIENCE INVOLVED

		TARGET AUDIENCE			
	MESSAGE CONTENT	BARRIO RESIDENTS	POBLACION RESIDENT	AVERAGE PEOPLE	HIGH STATUS PEOPLE
1ST CHOICE	HEALTH AND SANITATION	(1) TAGALOG RADIO BROADCASTS (28%)	(1) ENGLISH NEWSPAPERS (22.5%)	(1) TAGALOG BROADCASTS (18.4%)	(1) GOV'T EMPLOYEES AND OFFICIALS (28.1%)
2NO CHOICE		(2) GOV'T EMPLOYEES AND OFFICIALS (21.52%)	(2) TAGALOG BROADCASTS (20.8%)	(2) GOV'T EMPLOYEES AND OFFICIALS (14.8%)	(2) TAGALOG RADIO BROADCASTS (21.4%)
1ST CHOICE	AGRICULTURAL AND FISHING PRACTICES	(1) GOV'T EMPLOYEES AND OFFICIALS (32.8%)	(1) GOV'T EMPLOYEES AND OFFICIALS (36.2%)	(1) GOV'T EMPLOYEES AND OFFICIALS (34.5%)	(1) GOV'T OFFICIALS AND EMPLOYEES (34.7%)
2NO CHOICE		(2) TAGALOG RADIO BROADCASTS (28%)	(2) ENGLISH NEWSPAPERS (22.5%)	(2) TAGALOG RADIO BROADCASTS (18.4%)	(2) TAGALOG RADIO BROADCASTS (21.4%)

While numerous other points could be made by application of such data to cover all media, target audiences, and message contents of interest, these facts are, hopefully, sufficient to show how such data can be used in planning an effective communications program in developing countries. To provide one final illustration of this point, consider the option of having a message being passed along through a formal organization to which members of the target audience belong and attend regularly. For people of high socio-economic status one could potentially reach 12.8% of his target audience this way--which is approximately equal to what one would expect to reach using English radio broadcasts, and much greater than expectations from use of Tagalog newspapers. Further, benefits also might be obtained by having the organization help spur the target audience to action. For poblacion residents, more than 14% of the target audience could be reached by successful exploitation of formal organizations.

Summary and Conclusions:

The goal of this chapter was to illustrate how one could apply data of the type obtained in the Philippine base line survey to answer practical questions arising in a field application context in developing countries. To this end, a

number of communications options were expressed in terms of the same criterion, viz, the maximal portion of the ith target audience likely to be reached using the jth medium to relay a particular message. A simple three-term contingent probability model was employed to see how this figure varied as a function of the mass medium employed, the interpersonal communications source used, the formal organization involved, the message content, the dialect used, and the target audience involved. The adjusted exposure indices were found to be sensitive to all of these variations -- up to a point where a communications from case to case if he wished to reach the maximum number of people in the target audience.

While no attempt will be made to summarize all of the major points raised, a few illustrative findings can be cited. First, as one might suspect, as far as mass media are concerned, the potential exposure of barrio (rural) residents and people of lower socio-economic status is moderately high for Tagalog radio broadcasts and practically nonexistent for any type of English language presentation. Second, on the other hand, for poblacion residents and people of high socio-economic status English language newspapers would appear to be a promising medium by which to present items with a news content. At the same time, however, Tagalog radio broadcasts would appear to be an effective way to reach these people, also. Third, no matter if mass media, interpersonal sources of communications, or communications filtered through formal organizations are being considered, it is much easier to reach poblacion residents than barrio residents and people of higher socio-economic status as opposed to lower. Fourth, interpersonal communications are generally more effective than mass media presentations, except in cases such as presenting information to barrio residents and people of lower socio-economic status about certain selected topics ; that is, if one can assume that the people perceived to be the best available sources of information cooperate fully and relay the information with near by perfect fidelity. Finally, and most importantly, it appears possible to use cost-effectiveness techniques to contrast the effectiveness of widely disparate courses of action on communications strategy.

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*Also available through the Defense Documentation Center.

APPENDIX A

Data were originally collected using the questionnaire labeled "Institute of Philippine Culture-- Communications Effectiveness Study " (Appendix A-1). Responses were transformed to a code sheet included as Appendix A-2. The sheets used were originally prepared for paper and pencil tests containing 266 short answer items having five choices per item. Therefore, they were not completely applicable to the formats needed for the questionnaire. They were adequate, however, to punch the original master deck for each subject. A matching of original item numbers to column numbers on printout cards is shown in Appendix A-3.

Obviously, a review of Appendix A-3 shows rather clearly that much space is wasted duplicating information data. Therefore, a conversion program was written which did two things: First, it compressed the data from six cards per subject to four cards per subject simply by dropping most of the data in the first 26 columns of the master deck. This action produced a compressed master deck as indicated in Appendix A-4. The second thing it did was to remove all zero entries by adding one to each of the response options. This action permitted the cards to be compatible with demands placed upon them by frequency and the percentage analysis program available in the Pennsylvania State University library.

The final data conversion was done to produce data suited to analyses of variance. Essentially, 60 different groups of 5's were considered which represented all possible combinations of 3 levels of development x two levels of socio-economic status x his places of residence x five types of communities. Each of these groups contained scores from nine to twelve subjects with an average of ten. These scores were averaged over the n subjects to produce and average score which was then punched on the AOV deck. Naturally, data in this deck represented only a portion of the total deck, namely those items which appeared to have a plausible underlying continuum. Appendix A-5 describes the card format in detail. The AOV program employed is on file at the Pennsylvania State University Computation Center.

APPENDIX A-1 [MASTER CODE]

SERIAL NUMBER
(Social Security Number)

INSTITUTE OF PHILIPPINE CULTURE
COMMUNICATION EFFECTIVENESS STUDY

Respondent: Name
Address:

Interviewer: (Instructor)
Date:

A IDENTIFICATION DATA

1* Level of Development/FI

1-a Above Average
2-b Average
3-c Low

2* Community Number/MI

1 2 3 4 5
a b c d e

3* Community Type

1 Rice
2 Coconut
3 Sugar
4 Fishing
5 Industrial;other;combination of any 2 above

4* Community Population

1 Less than 10,000
2 10,001-15,000
3 15,001-30,000
4 30,001-50,000
5 More than 50,000

5* Place of Residence Spl. Code Col. 1

1 Poblacion
2 Barrio

6* Socio-Economic Status/Spl. Code Col. 2

1 Big People
2 Little People

7 Subject Number/Section Number

7* 8*
1 2 3 4 5/6 7 8 9 10
a b c d e a b c d e

9* Interviewer Number/Test Form

1 2 3 4 5

B INTERVIEW CONDITIONS

(1.) Time of Interview

1 Before 9 a.m.
10* 2 9-12 a.m.
3 12-3 p.m.
4 3-5 p.m.
5 After 5 p.m.

(2.) Length of Interview

1 Less than 30 min.
2 30 min. - 1 hr.
11* 3 1-2 hrs.
4 2-3 hrs.
5 More than 3 hrs.

3. Language of Interview

1 Tagalog
2 Ilocano
12* 3 English
4 Tagalog-English
5 Ilocano-English

4. Place of Interview

1 Home
2 Office
13* 3 Yard/Open Field
4 Store/Market
5 Other: _____

(5.) Number of People Present During Interview

1 None
14* 2 1-2
3 3-4
4 5 or more

6. Relationship to R

1 Family members
2 Relatives
15* 3 Neighbors
4 Acquaintances
5 Strangers

*IBM card column number

Note: Circled numbers indicate questions included in Analysis of Variance.

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(7.) Number of interruptions

16* 1 None
2 1-2
3 3 or more

8. Intruders

17* 1 Family members
2 Relatives
3 Neighbors
4 Acquaintances
5 Strangers

9. Length of interruption

18* 1 Less than 5 min.
2 5-10 min.
3 11-20 min.
4 21-30 min.
5 More than 30 min.

(10.) Attitude of R (If more than one, CODE LAST ATTITUDE.)

19* 1 Interested
2 Cooperative
3 Indifferent
4 Hesitant/Frightened
5 Antagonistic

11. Problem question No. 1: Area

20* 21*
1 2 3 4 5/6 7 8 9 10
C D E F G H I J K L

12. Problem question No. 1: Number

22* 23*
1 2 3 4 5/6 7 8 9 10/

24* 25*
11 12 13 14 15/16 17 18 19 20/

26*
21 22 23 24 25

13. Problem question No. 2: Area

27* 28*
1 2 3 4 5/6 7 8 9 10
C D E F G H I J K L

14. Problem question No 2: Number

29* 30*
1 2 3 4 5/6 7 8 9 10/

31* 32*
11 12 13 14 15/16 17 18 19 20/

33*
21 22 23 24 25

20-40: If more than one answer in a segment, CODE FIRST NUMBER.

15. Problem question No. 3: Area

34* 35*
1 2 3 4 5/6 7 8 9 10
C D E F G H I J K L

16. Problem question No 3: Number

36* 37*
1 2 3 4 5/6 7 8 9 10/

38* 39*
11 12 13 14 15/16 17 18 19 20/

40*
21 22 23 24 25

C R'S BACKGROUND

(1.) Age

41* 1 20-29 yrs.
2 30-44 yrs.
3 45-59 yrs.
4 60 or older

(2.) Length of residence in town

42* 1 Less than 1 yr.
2 1-2 yrs.
3 3-5 yrs.
4 6-9 yrs.
5 10 yrs. or more

3. If less than 3 years, previous residence

1 Another barrio, same mun. / city
2 Another mun. /city, same prov.
43* 3 Another province
4 Another region
5 Another country

4. Marital status

1 Single
2 Married
44* 3 Widowed
4 Separated
5 Other: _____

(5.) Number of children

1 None
2 1
45* 3 2-3
4 4-6
5 7 or more

6. Age range between youngest and eldest dependent children

1 Less than 1 yr.
2 1-2 yrs.
46* 3 3-5 yrs.
4 6-9 yrs.
5 10 yrs. or more

(7.) Number of other dependents

1 None
2 1
47* 3 2-3
4 4-6
5 7 or more

(8.) Relationship to R

1 Parents
2 Siblings
48* 3 Cousins
4 Nephews
5 Other: _____

(9.) R's education

1 Less than elementary graduate
2 Elementary graduate
49* 3 High school graduate
4 College graduate
5 Graduate studies

Side 1 Card 1
Side 1 Card 2

10. R's vocational training, if any

1 Agriculture
2 Industrial arts and trades
50* 3 Home arts
4 Secretarial
5 Other: _____

D R'S OCCUPATION

1. Major occupation

1 Private practitioner: M.D., etc.
2 Government official/ employee
51* 3 Educator
4 Priest/minister
5 Businessman: _____
6 Landowner
7 Farm owner-operator
52* 8 Farmer-tenant
9 Fisherman
10 Other; also, more than one occupation. (Checked in one segment) _____

(2.) Number of years in major occupation

1 Less than 1 yr.
2 1-2 yrs.
53* 3 3-5 yrs.
4 6-9 yrs.
5 10 yrs. or more

3. Secondary occupation

54*
1 Private practitioner: M. D., etc.
2 Government official/employee
3 Educator
4 Priest/minister
5 Businessman: _____
6 Landowner
7 Farm owner-operator
8 Farmer-tenant
9 Fisherman
10 Other; also, more than one occupation. _____

(4.) Number of secondary occupations

55*
1 None
2 1
3 2
4 3
5 4 or more

(5.) Time spent in secondary occup.

56*
1 1-4 hrs. a day
2 1-3 days a week
3 1-2 weeks a month
4 1-2 months a year
5 Other: _____

6. Previous occupation

57*
1 Private practitioner: M. D., etc.
2 Government official/employee
3 Educator
4 Priest/minister
5 Businessman: _____
6 Landowner
7 Farm owner-operator
8 Farmer-tenant
9 Fisherman
10 Other; also, more than one occupation. _____

7. Father's occupation

58*
1 Priv. pract.
2 Govt. off./emp.
3 Educator
4 Minister
5 Businessman: _____
6 Landowner
7 Farm owner-opr.
8 Farmer-tenant
9 Fisherman
10 Other; also, more than one occupation. _____

59*

60*

61*

E ASPIRATIONS

(1.) Would you say that you are very satisfied, satisfied, not satisfied or very dissatisfied with your present occupation?

62*
1 Very satisfied
2 Satisfied
3 Neither
4 Not satisfied
5 Very dissatisfied

(2.) Do you intend to remain in your present occupation or would you rather change to another occupation?

63*
1 Remain in same occupation
2 Have secondary occupation
3 Change to another occupation
4 Other: _____

3. If you want to change to another occupation, what kind of occupation would you like to have?

64*
1 Private practitioner: M. D., etc.
2 Government official/employee
3 Educator
4 Priest/minister
5 Businessman: _____
6 Landowner
7 Farm owner-operator
8 Farmer-tenant
9 Fisherman
10 Other; also, more than one occupation. _____

65*

4. Would you like your children to follow you in your present occupation or let them take up any occupation of their choice?

1 Follow me
2 Does not matter
66* 3 Their choice
4 My choice
5 More than one response

(5.) How far would you like your children to continue their education?

1 Grade six
2 High school
67* 3 Vocational school
4 College
5 Graduate school

(6.) Almost everyone would like to have some things which he does not now have. What things would you like to own most?

1 Personal adornment: watch
2 Household eqpt.: radio, TV
68* 3 Kitchen appliances: refrig.
4 Motor vehicle: jeep, car
5 Other: _____

(7.) How much land would you like to own?

1 0-2 hectares
2 3-5 hectares
69* 3 6-9 hectares
4 10-14 hectares
5 15 hectares or more

(8.) How much money would you like to earn each month?

1 ₱60-89
2 ₱90-149
70* 3 ₱150-299
4 ₱300-499
5 ₱500 or more

(9.) Whom would you like know and be close with in the government?

1 None
2 Mayor
71* 3 Governor
4 Congressman
5 Senator
6 President
72* 7 Other: _____

(10.) What position in the government would you like to hold?

1 None
2 Barrio Councilor, etc.: _____
73* 3 Barrio Captain
4 Mun. Councilor, etc.: _____
5 Municipal Mayor
6 Prov. Board Member, etc.: _____
7 Provincial Governor
74* 8 Congressman/Senator
9 President
10 Other: _____

F SOCIAL PARTICIPATION

1. Are you a member of any formal organization?

75* 1 Yes
2 No

2. If yes, to what type of formal organization do you belong?

(76)* - CODE ACTUAL NUMBER OF ORGANIZATIONS R BELONGS TO.

a-1 1 Youth organization
b-2 2 Student organization
c-3 3 Alumni association
d-4 4 Community organization
e-5 5 Civic organization
or more 6 Religious organization
7 Charitable organization
8 Political organization
9 Veteran's organization
10 Professional society

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(3.) How often do you attend meetings of formal organizations?

77*
1 Daily
2 Weekly
3 Less than three times a month
4 Rarely
5 Never

4. There are groups that meet somewhat regularly but on non-specified times and with no formal rules of discussion. Have you ever attended any such informal groups?

78*
1 Yes
2 No

5. If yes, to what type of informal group do you belong?

79* - CODE ACTUAL NUMBER OF GROUPS R BELONGS TO.

a-1
b-2
c-3
d-4
e-5 or more —

1 Age group
2 Neighborhood group
3 Barbershop habitues
4 Sari-sari store habitues
5 Recreational/play/hobby group
6 Gambling group
7 Schoolmates' group
8 Co-workers' group
9 Professional group
10 Social class group

(6.) How often do you meet with informal groups?

80*
1 Daily
2 Weekly
3 Less than three times a month
4 Rarely
5 Never

END CARD (1)

[G] SOURCES OF INFORMATION

1. Whether Information is of real value may depend upon the type of information and who provides it. In your opinion, who in this community are the people you consider as valuable sources of information?

a. _____ f. _____

b. _____ g. _____

c. _____ h. _____

d. _____ i. _____

e. _____ j. _____

(81)*
1 1 source mentioned
2 2 sources mentioned
3 3 sources mentioned
4 4 sources mentioned
5 5 or more sources mentioned

(2.) In your opinion, who among these persons you mentioned is the one to whom most people go for any kind of information?

82*
1 Private practitioner
2 Government official/employee
3 Educator
4 Priest/minister
5 Businessman: _____
6 Landowner
7 Farm owner-operator
8 Farmer-tenant
9 Fisherman
10 Other; also, more than one response checked. _____

83

4. When it comes to receiving worthwhile, accurate information about AGRICULTURAL/FISHING PRACTICES AND TECHNIQUES, who do you think is the most valuable source of information? (CODE BELOW)

_____

5. the second most valuable source?

6. the third most valuable source?

	(4)	(5)	(6)
1. Family member	1	1	1
2. Relative/kin	2	2	2
3. Close friend	84* 3	87* 3	90*3
4. Neighbor	4	4	4
5. Acquaintance	5	5	5
6. Priv. Pract.	6	6	6
7. Govt. off./emp.	7	7	7
8. Educator	85* 8	88* 8	91*8
9. Priest/minister	9	9	9
10. Businessman	10	10	10
11. Landowner	11	11	11
12. Farm owner-opr.	12	12	12
13. Farmer-tenant	86*13	89*13	92*13
14. Fisherman	14	14	14
15. Other:_____	15	15	15

7. Now let us go back to the persons you identified as most valuable sources of information. How often is your contact with... (MENTION NAME OF FIRST CHOICE AND CODE ON NEXT COLUMN ABOVE).

8. How about ... ?(MENTION NAME OF 2ND CHOICE AND CODE BELOW).

(9.) How about ...?(MENTION NAME OF 3RD CHOICE AND CODE BELOW).

Frequency of Contact	93* (7)	94* (8)	95* (9)
1. Daily	1	1	1
2. Weekly	2	2	2
3. Less than 3X a mo.	3	3	3
4. Monthly	4	4	4
5. Rarely or Never	5	5	5

10. When it comes to receiving worthwhile, accurate information about CITIZENSHIP RIGHTS AND RESPONSIBILITIES, who do you think is the most valuable source of information? (CODE BELOW)

11. the second most valuable source?

12. the third most valuable source?

	(10)	(11)	(12)
Family member	1	1	1
Relative/kin	2	2	2
Close friend	96* 3	99* 3	102* 3
Neighbor	4	4	4
Acquaintance	5	5	5
Priv. practitioner	6	6	6
Govt. official/emp.	7	7	7
Educator	97* 8	100* 8	103* 8
Priest/minister	9	9	9
Businessman	10	10	10
Landowner	11	11	11
Farm owner-operator	12	12	12
Farmer-tenant	98* 13	101* 13	104* 13
Fisherman	14	14	14
Other:_____	15	15	15

Side 1, Card 2 Side 1, Card 3

13. Now let us go back to the persons you identified as most valuable sources of information. How often is your contact with... (MENTION NAME OF FIRST CHOICE AND CODE ON NEXT PAGE).

14. How about ...? (MENTION NAME OF 2ND CHOICE AND CODE NEXT PAGE).

(15.) How about ... ?(MENTION NAME OF 3RD CHOICE AND CODE BELOW).

Frequency of Contact	105* (13)	106* (14)	107* (15)
Daily	1	1	1
Weekly	2	2	2
Less than 3X a mo.	3	3	3
Monthly	4	4	4
Rarely	5	5	5

16. When it comes to receiving worthwhile, accurate information about MATTERS ON HEALTH AND SANITATION, who do you think is the most valuable source of information? (CODE BELOW)

17. the second most valuable source?

18. the third most valuable source?

	(16)	(17)	(18)
Family member	1	1	1
Relative/kin	2	2	2
Close friend	108*3	111* 3	114*3
Neighbor	4	4	4
Acquaintance	5	5	5
Priv. practitioner	6	6	6
Govt. official/emp.	7	7	7
Educator	109*8	112* 8	115*8
Priest/minister	9	9	9
Businessman	10	10	10
Landowner	11	11	11
Farm owner-operator	12	12	12
Farmer-tenant	110*13	113* 13	116*13
Fisherman	14	14	14
Other: _____ _____	15	15	15

19. Now let us go back to the persons you identified as most valuable sources of information. How often is your contact with...? (MENTION NAME OF 1ST CHOICE AND CODE ON NEXT COLUMN.)

20. How about...?(MENTION NAME OF 2ND CHOICE AND CODE ON NEXT COLUMN.)

21. How about...?(MENTION NAME OF 3RD CHOICE AND CODE ON NEXT COLUMN.)

Frequency of Contact	117* (19)	118* (20)	119* (21)
Daily	1	1	1
Weekly	2	2	2
Less than 3X a mo.	3	3	3
Monthly	4	4	4
Rarely or Never	5	5	5

22. When it comes to receiving worthwhile, accurate information THAT HELPS TO MAKE A BETTER LIFE FOR YOU AND YOUR FAMILY, who do you think is the most valuable source of information? (CODE BELOW)

23. the second most valuable source?

24. the third most valuable source?

		(22)	(23)	(24)
Family member		1	1	1
Relative/kin		2	2	2
Close friend	120*	3	123* 3	126*3
Neighbor		4	4	4
Acquaintance		5	5	5
Priv. practitioner		6	6	6
Govt. official/emp.		7	7	7
Educator	121*	8	124*8	127*8
Priest, minister		9	9	9
Businessman		10	10	10
Landowner		11	11	11
Farm owner-operator		12	12	
Farmer-tenant	122*	13	125*13	12
Fisherman		14	14	14
Other: _____		15	15	15

25. Now let us go back to the persons you identified as most valuable sources of information. How often is your contact with...(MENTION NAME OF 1ST CHOICE AND CODE BELOW)

26. How about...?(MENTION NAME OF 2ND CHOICE AND CODE BELOW.)

27. How about...?(MENTION NAME OF 3RD CHOICE AND CODE BELOW.)

Frequency of Contact		(25)	(26)	(27)
Daily		1	1	1
Weekly	129*	2	130*2	131* 2
Less than 3X a mo.		3	3	3
Monthly		4	4	4
Rarely or Never		5	5	5

H OPINION LEADERSHIP

1. Can you recall anyone who offered you any suggestion or recommendation concerning AGRICULTURAL/FISHING PRACTICES AND TECHNIQUES?

132* 1 Yes
2 No (SKIP TO Q. #8)

2. If yes, who was it?

Side 2, Card 1 / Side 1, Card 3

	(2)	(4)
Private practitioner	1	1
Political leader	2	2
Civil service socialist	133* 3	135* 3
Public health official	4	4
Education specialist	5	5
Priest/minister	6	6
Businessman/salesman	7	7
Landowner/owner-operator	134* 8	136* 8
Expd. farmer/fisherman	9	9
Other: _____	10	10

3. What did he suggest or recommend to you?

_____

_____

4. Who else offered you any other suggestion or recommendation concerning AGRICULTURAL/FISHING PRACTICES AND TECHNIQUES? (CODE ABOVE)

5. What did he suggest or recommend to you?

6. Between the first source and the second source, whom did you believe in more?

137* 1 First source
2 Second source

7. Why?

8. Can you recall anyone who offered you any suggestion or recommendation concerning CITIZENSHIP RIGHTS AND RESPONSIBILITIES?

1 Yes
B8 2 No (SKIP TO Q. #15)

9. If yes, who was it?

	(9)	(11)
Private practitioner	1	1
Political leader	2	2
Civil service specialist	139* 3	141* 3
Public health official	4	4
Education specialist	5	5
Priest/minister	6	6
Businessman/salesman	7	7
Landowner/owner-operator	140* 8	142* 8
Expd. farmer/fisherman	9	9
Other: _____	10	10

10. What did he suggest or recommend to you?

_____

_____

11. Who else offered you any other suggestion or recommendation concerning CITIZENSHIP RIGHTS AND RESPONSIBILITIES? (CODE ABOVE)

12. What did he suggest or recommend to you?

_____

_____

13. Between the first source and the second source, whom did you believe in more?

143* 1 First source
2 Second source

14. Why?

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15. Can you recall anyone who offered you any suggestion or recommendation concerning matters on HEALTH AND SANITATION?

144* 1 Yes
2 No (SKIP TO Q. #22)

16. If yes, who was it?

	(16)	(18)
Private practitioner	1	1
Political leader	2	2
Civil service specialist	145* 3	147* 3
Public health official	4	4
Education specialist	5	5
Priest/minister	6	6
Businessman/salesman	7	7
Landowner/owner-operator	146* 8	148* 8
Expd. farmer/fisherman	9	9
Other: _____	10	10

17. What did he suggest or recommend to you?

_____

_____

18. Who else offered you any other suggestion or recommendation concerning matters on HEALTH AND SANITATION? (CODE ABOVE)

19. What did he suggest or recommend to you?

_____

_____

20. Between the first source and the second source, whom did you believe in more?

149* 1 First source
2 Second source

21. Why?

22. Can you recall anyone who offered you any suggestion or recommendation concerning any INFORMATION THAT HELPS TO MAKE A BETTER LIFE FOR YOU AND YOUR FAMILY?

150* 1 Yes
2 No (SKIP TO NEXT PAGE)

23. If yes, who was it?

	(23)	(25)
Private practitioner	1	1
Political leader	2	2
Civil service specialist	151* 3	153* 3
Public health official	4	4
Education specialist	5	5
Priest/minister	6	6
Businessman/salesman	7	7
Landowner/owner-operator	152* 8	154* 8
Expd. farmer/fisherman	9	9
Other: _____	10	10

24. What did he suggest or recommend to you?

_____

_____

25. Who else offered you any other suggestion or recommendation concerning INFORMATION THAT HELPS TO MAKE A BETTER LIFE FOR YOU AND YOUR FAMILY? (CODE ABOVE)

26. What did he suggest or recommend to you?

_____

_____

27. Between the first source and the second source, whom did you believe in more?

155* 1 First source
2 Second source

28. Why?

I INNOVATIVENESS

1. In any place, there is usually somebody who is always first to try out new things or new ways of doing things. In this community, is there anybody who is always first to try out new things or new ways of doing things?

1 Yes
156* 2 No
3 Don't know

(2.) If there is anyone, is he one of the "big people" or the "little people?"

2 Big people
157*3 Little people
4 Average

3. What is his occupation?

1 Private practitioner
2 Govt. official/employee
158*3 Educator
4 Priest/minister
5 Businessman: _____
6 Landowner
7 Farm owner-operator
159*8 Farmer-tenant
9 Fisherman
10 Other: _____

4. Why do you think is he always the first one to try out new things or new ways of doing things in this community?

5. In AGRICULTURE/FISHING, new products and techniques are being developed. In this community, is there anybody who is always first to try out new agricultural/fishing products and practices?

1 Yes
160*2 No
3 Don't know

(6.) If there is anyone, who do you think is most likely to try out new agricultural/fishing products and practices, one who belongs to the "big people" or the "little people?"

1 Big people
161*2 Little people
3 Average

7. What is his occupation?

1 Private practitioner
2 Govt. official/employee
162* 3 Educator
4 Priest/minister
5 Businessman: _____
6 Landowner
7 Farm owner-operator
163* 8 Farmer-tenant
9 Fisherman
10 Other: _____

8. Do you think you will try out new agricultural/fishing products and techniques?

1 Yes
164*2 No
3 Don't know

9. Why will you (not) try them out?

10. (FOR FARMER) Do you use any insecticide in your farming?

(FOR FISHERMAN) Do you use ice to keep your fish catch fresh longer?

1 Yes
165*2 No

11. How effective do you think is this practice?

1 Extremely effective
2 Very effective
166*3 Effective
4 Some help
5 Questionable help

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12. In matters of HEALTH AND SANITATION, new practices and technics are being developed. In this community, is there anybody who is always first to try out new health and sanitation practices and techniques?

1 Yes
167*2 No
3 Don't know

(13.) If there is anyone, who do you think is most likely to be the first one to try out new health and sanitation practices and techniques, one who belongs to the "big people" or the "little people?"

1 Big people
168*2 Little people
3 Average

14. What is his occupation?

1 Private practitioner
2 Govt. official/employee
3 Educator
169*4 Priest/minister
5 Businessman: _____
6 Landowner
7 Farm owner-operator
170*8 Farmer-tenant
9 Fisherman
10 Other: _____

15. Why do you think will he be the first one to try out new health and sanitation practices and techniques?

16. Do you consult a medical doctor?

171*1 Yes
2 No

17. If yes, when did you last consult a medical doctor?

1 This week/Last week
2 Last month
172*3 Last year
4 2-5 years ago
5 More than 5 years ago

18. Did you follow his advice or take the medicine he prescribed?

173*1 Yes
2 No

19. If yes, how effective do you think was his advice or the medicine he prescribed?

1 Extremely effective
2 Very effective
174*3 Effective
4 Some help
5 Questionable help

20. In the government, new problems develop as new issues and plans are being discussed. In this community, is there anybody who is always first to think up of a solution to a problem of the government?

1 Yes
175*2 No
3 Don't know

(21.) If there is anyone, who do you think is most likely to suggest a solution to a problem of the government, one who belongs to the "big people" or the "little people?"

1 Big people
176*2 Little people
3 Average

22. What is his occupation?

1 Private practitioner
2 Govt. official/employee
177*3 Educator
4 Priest/minister
5 Businessman

6 Landowner
7 Farm owner-operator
178* 8 Farmer-tenant
9 Fisherman
10 Other: _____

23. In your case, will you or will you not see your congressman personally or write to him about your ideas for helping solve a problem of the government?

1 Will see him personally
179* 2 Will write to him
3 Will do neither
4 Will do both

24. If you will see him personally or write to him, why do you think you will do this?

J MASS MEDIA: RADIO

(1.) Aside from persons, radio and reading materials also serve as valuable sources of information. Do you listen to the RADIO?

180* 1 Yes
2 No

2. Where do you listen to the radio?

1 At home
181* 2 At friend's place
3 Other: _____

(3.) How often do you listen to the radio?

1 Daily
Side 2, Card 1 182* 2 Weekly
3 Less than three times a month
4 Monthly
5 Rarely

Side 2, Card 2

4. Which broadcast do you listen to more often, English, Tagalog, or both?

1 English
183* 2 Tagalog
3 Both

(5.) To what kinds of programs do you listen: news, music, dramas, or others?

CODE ACTUAL NUMBER OF PROGRAMS R LISTENS TO.
184* -

6. (IF MORE THAN ONE MENTIONED) Which of these programs do you listen to most often?

1 News
185* 2 Music
3 Dramas
4 Other: _____

(7.) How often do you listen to...

	(7) News 186*	(8) Music 187*	(9) Drama 188*	(10) Other 189*
Daily	1	1	1	1
Weekly	2	2	2	2
Less than 3 X a mo.	3	3	3	3
Monthly	4	4	4	4
Rarely	5	5	5	5

(11.) At what time do you usually listen to ...

	(11) News 190*	(12) Music 191*	(13) Drama 192*	(14) Other 193*
Morning	1	1	1	1
Noon	2	2	2	2
Afternoon	3	3	3	3
Night	4	4	4	4
Other	5	5	5	5

15. On what days do you usually listen to...

	(15) News	(16) Music	(17) Drama	(18) Other
Everyday	1	1	1	1
Monday	2	2	2	2
Tuesday	194* 3	196* 3	198* 3	200* 3
Wednesday	4	4	4	4
Thursday	5	5	5	5
Friday	6	5	6	6
Saturday	195* 7	197* 7	199* 7	201* 7
Sunday	8	8	8	8
Other: more than one day	9	9	9	9

K MASS MEDIA: READING MATERIALS

(1.) Do you read NEWSPAPERS?

202* 1 Yes
2 No

2. Where do you read newspapers?

1 At home
203* 2 At friend's place
3 Other: _____

(3.) How often do you read newspapers?

1 Daily
2 Weekly
204* 3 Less than 3 times a month
4 Monthly
5 Rarely

4. Which newspaper do you read, English, Tagalog, both, or multilingual?

1 English
2 Tagalog
205* 3 Both (English and Tagalog)
4 Mulitlingual

5. (IF ANSWER IS BOTH) Which of these newspapers do you read most often, English or Tagalog?

206* 1 English
2 Tagalog

6. If English, Tagalog and mulitlingual newspapers are available, which would you prefer to read?

1 English
207* 2 Tagalog
3 Multilingual

7. Which part of the newspaper do you most often read: news, editorial, columns, sports, society, comics, advertisements, other?

1 News
2 Editorial
208* 3 Columns
4 Sports
5 Society
6 Comics
7 Advertisements
209* 8 Other: No preference

8. Do you read MAGAZINES?

210* 1 Yes
2 No

9. Where do you read magazines?

1 At home
211* 2 At friend's place
3 Other: _____

(10.) How often do you read magazines?

1 Daily
2 Weekly
212* 3 Less than 3 times a month
4 Monthly
5 Rarely

11. Which magazines do you read: English, Tagalog, both, or multilingual?

1 English
2 Tagalog
213* 3 Both
4 Multilingual

12. (IF ANSWER IS BOTH) Which of these magazines do you read most often?

214* 1 English
2 Tagalog

13. If English, Tagalog and multilingual magazines are available, which would you prefer to read?

215* 1 English
2 Tagalog
3 Multilingual
4 No preference

14. Which part of the magazine do you read most often: news, editorial, columns, sports, literary, society, comics, other?

216* 1 News
2 Editorial
3 Columns
4 Sports
5 Literary/Fiction
6 Society/Fashion/Home
7 Comics
217* 8 Other: No preference

15. Do you read COMICS?

218* 1 Yes
2 No

16. Where do you read comics?

219* 1 At home
2 At friend's place
3 Other: _____

17. How often do you read comics?

220* 1 Daily
2 Weekly
3 Less than 3 times a month
4 Monthly
5 Rarely

18. What comics do you read: English, Tagalog, both, or multilingual?

221* 1 English
2 Tagalog
3 Both
4 Mulitlingual

19. (IF ANSWER IS BOTH) Which of these comics do you read most often, English or Tagalog?

222* 1 English
2 Tagalog

20. If English, Tagalog and multilingual comics are available, which would you prefer to read?

223* 1 English
2 Tagalog
3 Multilingual

21. What kind of comics do you read most often: funnies, detective, war, adventure, crime, romance?

224* 1 Funnies
2 Detective
3 War
4 Adventure
5 Crime
6 Romance
7 Other: No preference

225*

22. Can you recall any POSTER that you saw last year which you particularly liked?

226* 1 Yes
2 No

23. If yes, what was it about?

227* 1 Agriculture/Fishing
2 Citizenship rights and responsibilities
3 Health and sanitation
4 Other: _____

24. Can you recall any PAMPHLET that you read last year which you particularly liked?

228* 1 Yes
2 No

25. If yes, what was it about?

229* 1 Agriculture/Fishing
2 Citizenship rights and responsibilities
3 Health and sanitation
4 Other: _____

IPC Communication Effectiveness Study

L LEVEL OF LIVING

1. Going back to your status in life, how much land do you presently own?

230*
1 No land property
2 Homelot-- 2 hectares
3 3-5 hectares
4 6-9 hectares
5 10 or more hectares

2. Where is this land property located?

231*
1 In this barrio/poblacion
2 In this municipality/city
3 In another mun./city, same province
4 In another province
5 In more than one location

Side 2, Card 2

Side 2, Card 3

3. What proportion of this land is used for agricultural/fish pond purposes?

232*
1 None
2 1/4
3 1/2
4 3/4
5 All

4. What crops/fish varieties are produced in the land?

233*
1 Rice
2 Coconut
3 Sugar
4 Bangus
5 Other: Combination of any 2 of above

5. What do you do with the land that is not used for farming/as fish ponds?

234*
1 None/Idle
2 Residential
3 Leased for residential use
4 Leased for agricultural use
5 Leased for industrial use

6. If you have any business enterprise, what is it?

235*
1 Sari-sari store
2 Market stall
3 Shop: _____
4 Other: _____

7. How many paid workers/employees do you have at present?

236*
1 None
2 1-2
3 3-5
4 6-9
5 10 or more

8. What is your major source of income?

237*
1 No steady income
2 Commission
3 Wages
4 Regular salary
5 Profession
6 Own business: _____
7 Rentals
8 Interests
9 Pension
10 Other: _____

9. What is your average monthly income from ALL sources?

239*
1 Less than ₱ 59
2 ₱ 60-89
3 ₱ 90-149
4 ₱ 150-299
5 ₱ 300 or more

10. What modern appliances or equipment do you now own?

CODE ACTUAL NO. OF CATEGORIES CHECKED.

240*
1 Home entertainment: radio, TV
2 Kitchen appliances: refrig., etc.
3 Farm/fishing equipment: tractor,
4 Motor vehicle: car (motor boat
5 Other: _____

(11.) House construction

241* 1 Light
2 Mixed
3 Strong

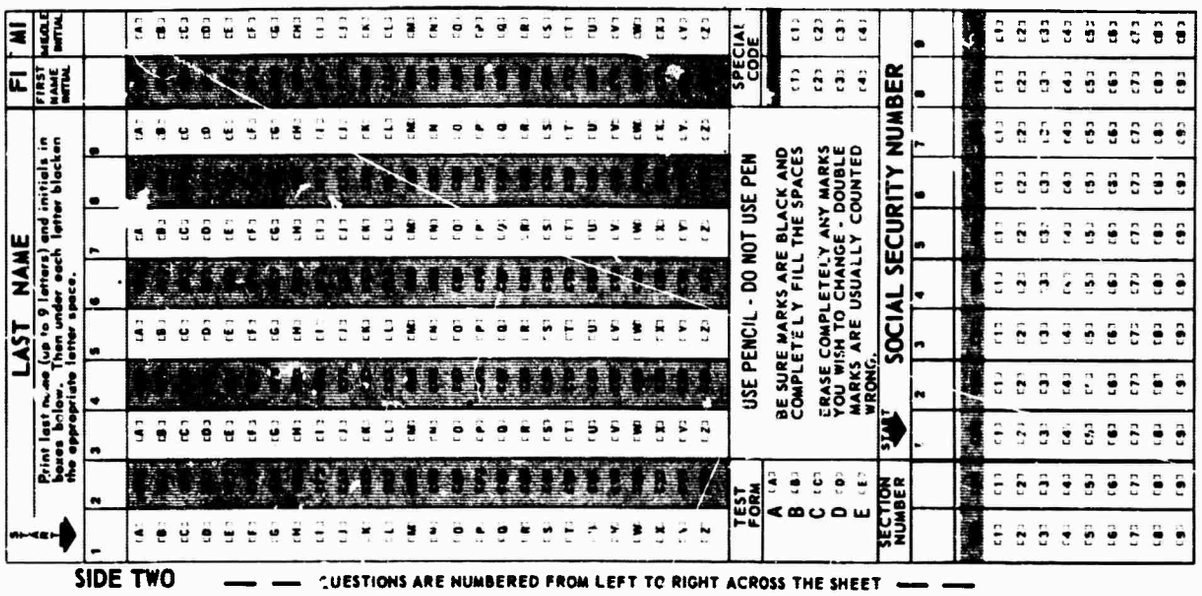
(12.) Number of rooms

242* 1 One
2 Two
3 Three
4 Four
5 Five or more

(13.) House where family lives is...

243* 1 (Squatting)
2 Rented
3 Owned

PENN ARTS FORM A-2 II



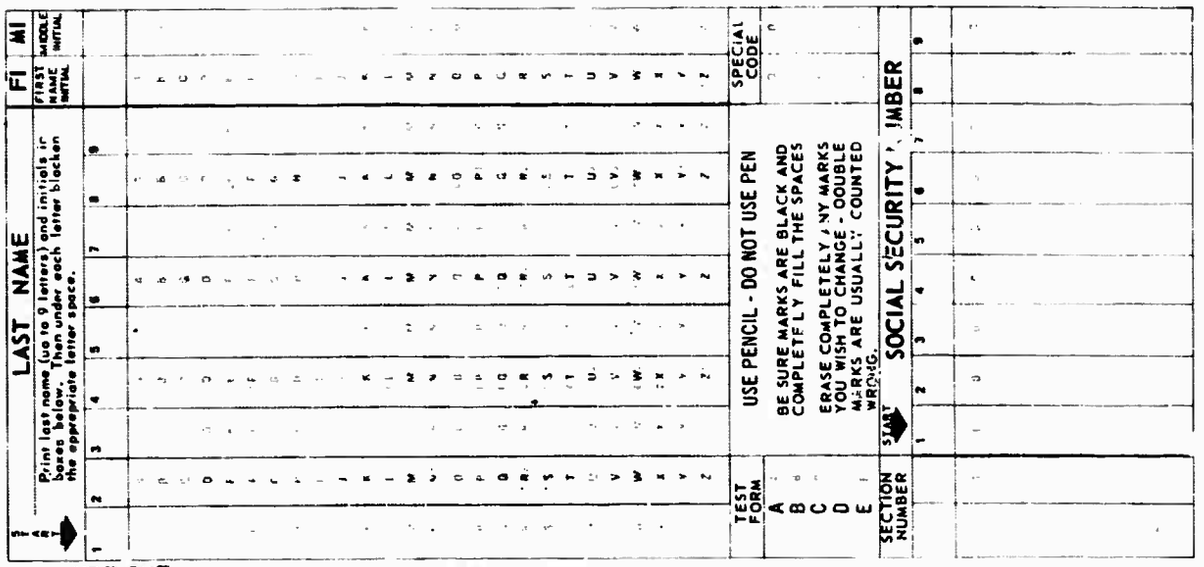
SIDE TWO — — QUESTIONS ARE NUMBERED FROM LEFT TO RIGHT ACROSS THE SHEET — —

134	135	136	137	138	139	140
141	142	143	144	145	146	147
148	149	150	151	152	153	154
155	156	157	158	159	160	161
162	163	164	165	166	167	168
169	170	171	172	173	174	175
176	177	178	179	180	181	182
183	184	185	186	187	188	189
190	191	192	193	194	195	196
197	198	199	200	201	202	203
204	205	206	207	208	209	210
211	212	213	214	215	216	217
218	219	220	221	222	223	224
225	226	227	228	229	230	231
232	233	234	235	236	237	238
239	240	241	242	243	244	245
246	247	248	249	250	251	252
253	254	255	256	257	258	259
260	261	262	263	264	265	266

PA 132a PS

THE PENNSYLVANIA STATE UNIVERSITY

PENN ARTS FORM A-21



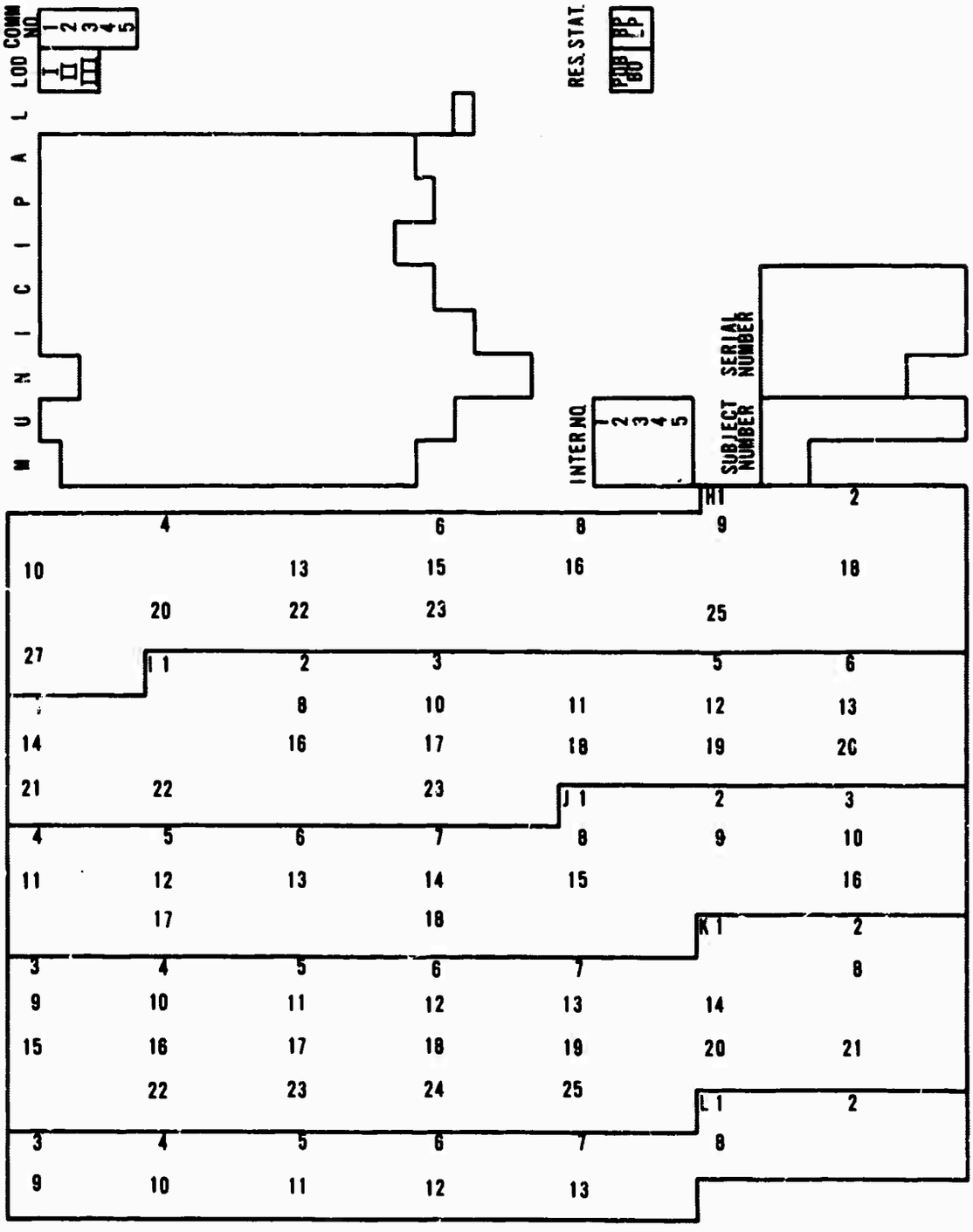
SIDE ONE — — QUESTIONS ARE NUMBERED FROM LEFT TO RIGHT ACROSS THE SHEET — —

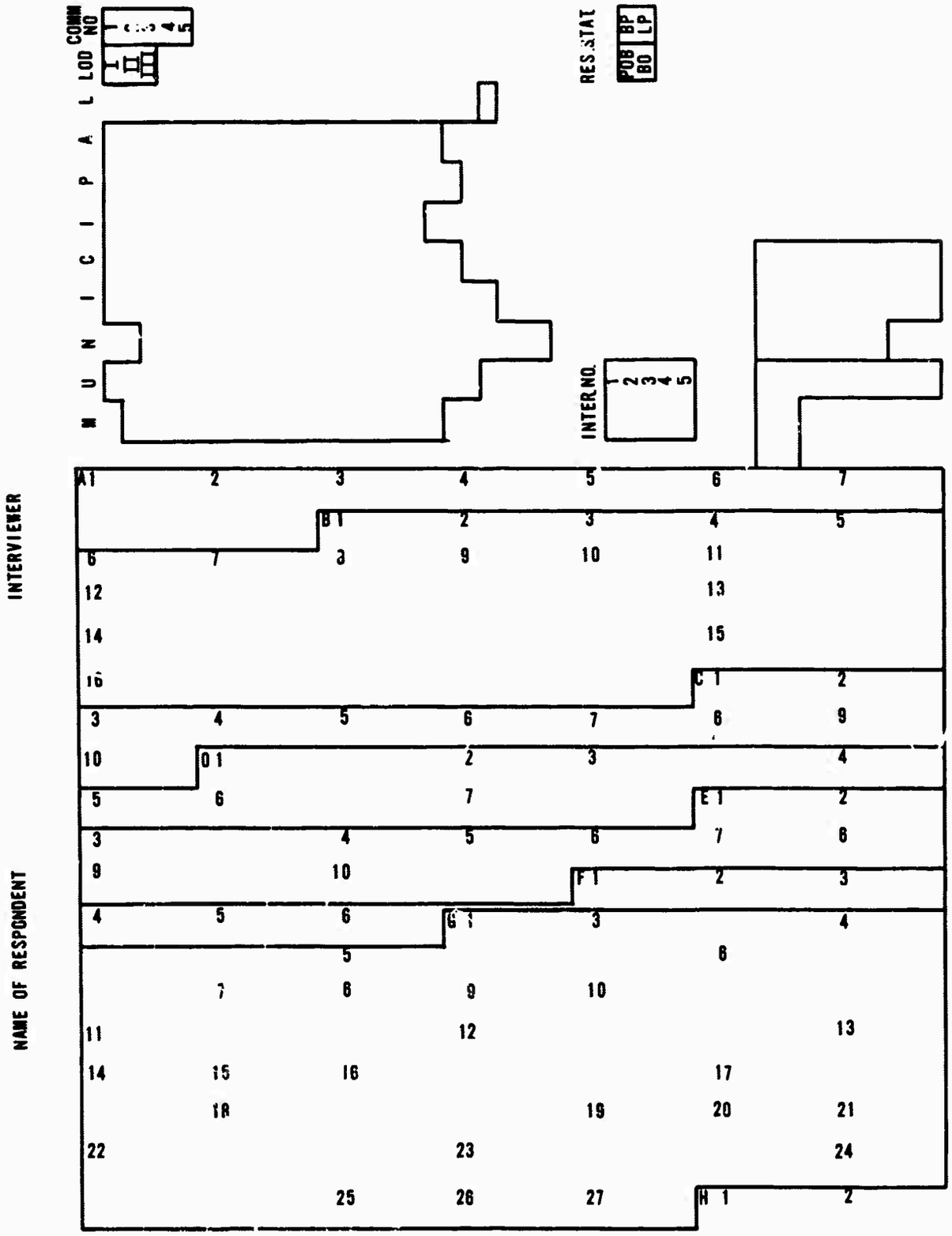
PRINT FULL NAME _____ LAST _____ FIRST _____ MI

TEST NAME _____ FORM _____ COURSE _____ DATE _____ INSTRUCTOR _____

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	32	33	34	35
36	37	38	39	40	41	42
43	44	45	46	47	48	49
50	51	52	53	54	55	56
57	58	59	60	61	62	63
64	65	66	67	68	69	70
71	72	73	74	75	76	77
78	79	80	81	82	83	84
85	86	87	88	89	90	91
92	93	94	95	96	97	98
99	100	101	102	103	104	105
106	107	108	109	110	111	112
113	114	115	116	117	118	119
120	121	122	123	124	125	126
127	128	129	130	131	132	133

PA 132 PS


COMM NO.
1 2 3 4 5
LOD
I
RES. STAT.
PUB BP
80
MUNICIPAL
SERIAL NUMBER
SUBJECT NUMBER
INTER NO.
1 2 3 4 5
H 1 2
4 6 8 9
10 13 15 16 18
20 22 23 25
27
I 1 2 3 5 6
8 10 11 12 13
14 16 17 18 19 20
21 22 23
J 1 2 3
4 5 6 7 8 9 10
11 12 13 14 15 16
17 18
K 1 2
3 4 5 6 7 8
9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25
L 1 2
3 4 5 6 7 8
9 10 11 12 13


MUNICIPAL LOD
COMM NO
RES.STAT
POB BP BO LP
INTER.NO.
INTERVIEWER
NAME OF RESPONDENT

APPENDIX A-3

ORIGINAL PRINTOUT CODE

Name of COMMUNITY	LOD	Comm. No.	Serial No.	Res.
1 - 9	11	12	13-15	22

Stat.	Subj. No.	Int. No.
23	24-25	26

[The above information is repeated in each of the first twenty-six columns on each of the six cards per subject]

Above numbers refer to card column numbers.

A. ID Data	B. Interview Conditions	C. R's Background
1 - 9	10 - 40	41 - 49
27 - 35	36 - 66	67 - 75

Side 1	Card 1
79	J 80

C.	D. R's Occupation	E. Aspirations
50	51 - 61	62 - 74
27	28 - 38	39 - 51

F. Social Participation	G. Sources of Info.	Side 1	Card 2
75 - 80	81 - 98		K
52 - 57	58 - 75	79	80

G. Sources of Info.	H. Opinion Leadership	Side 1	Card 3
99 - 131	132 - 133		L
27 - 59	60 61	79	80

H. Opinion Leadership	I. Innovativeness
134 - 155	156 - 179
27 - 48	49 - 72

J. Mass Media: Radio	Side 2	Card 1
180 - 182		J
73 - 75	79	80

J. Mass Media: Radio	K. Mass Media Reading Mats.
183 - 201	202 - 229
27 45	46 73

L. Level of Living	Card 2	Side 2
230-231		K
74 - 75	79	80

L. Level of Living	Card 2	Side 3
232 - 243		L
27 38	79	80

Item number from answer code used in Appendix A-1 shown above each line. Column numbers on each of the six raw data cards per subject are shown below the line.

APPENDIX A-4

Layout of Items on Compressed

MASTER DECK CODE

Serial No.	Card No.	[A] ID Data 1-9	[B] Interview Conditions 10 - 40	[C] R's Background 41 - 50	[D] R's Occupation 51 - 61	[E] R's Aspirations 62 - 74	
Columns: 1-3	4	5-13	14 - 44	45 - 54	55 - 65	66 - 78	Card 1
			[F] Social Participation 75 - 80		[G] Sources of Information 81 - 131		
Columns: (Repeat) Card 1			14 - 19		20 - 70		Card 2
			[H] Opinion Leadership 132 - 155		[I] Innovativeness 156 - 179		
Columns: (Repeat) Card 1			14 - 37		38 - 61		Card 3
			[J] Mass Media: Radio 180 - 201		[K] Mass Media: Reading Materials 202 - 229	[L] R's Level of Living 230 - 243	
Columns: (Repeat) Card 1			14 - 35	36 - 63		64 - 77	Card 4

CARD 1

	Column No.	Item No.	Question
		A	ID Data
Ind. Var.	5	1	Level of Development 1-Above Ave. 2-Average 3-Below Ave.
	6	2	Community No. 1 2 3 4 5
	7	3	Community Type 1 2 3 4 5
	8	4	Population 1 2 3 4 5
Ind. Var.	9	5	Residence 1-Poblacion 2-Barrio
Ind. Var.	10	6	Socio-economic Status 1 - BP 2 - LP 3 - Middle
	11-12	7-8	Subject No. 1- 1-6 2- 2-7 3- 3-8 4- 4-9 5- 5-10
	13	9	Interviewer No.
		B	Interview Conditions
	14	10	Time of Interview
	15	11	Length of interview
	16	12	Language of interview

	Column No.	Item No.	Question
		C	R's Background
	45	41	Age
	46	42	Length of residence in town
	47	43	Previous residence
	48	44	Marital status
	49	45	No. of Children
	50	46	Age range between youngest and oldest children
	51	47	No. of other Dependents
	52	48	Relationship to R
	53	49	R's education
	54	50	R's vocational training
		D	R's Occupation
	55-56	51-52	Major occupation
	57	53	No. of years in major occup.
	58-59	54-55	Secondary occupation

CARD 1 (Cont'd)

Column No.	Item No.	Question	Column No.	Item No.	Question
17	13	Place of interview	60	56	No. of secondary occup.
18	14	No. of people present during interview	61	57	Time spent in sec. occup.
19	15	Relationship to R	62-63	58-59	Previous occupation
20	16	No. of interruptions	64-65	60-61	Father's occupation
				E R s	Aspirations
21	17	Intruders	66	62	Occupational satisfaction
22	18	Length of interruption	67	63	Intent to change occup.
23	19	Attitude of R	68-69	64-65	Occup. aspiration
24-25	20-21	Problem C. #1: Area	70	66	Decision of children for Educ.
26-30	22-26	" " : No.	71	67	Educ. aspiration for children
31-32	27-28	" #2: Area	72	68	Ownership of things, aspir.
33-37	29-33	" " : No.	73	69	Ownership of land, aspir.
38-39	34-35	" #3: Area	74	70	Income aspiration
40-44	36-40	" " : No.	75-76	71-72	Political contact
			77-78	73-74	Government position

CARD 2

	Column No.	Item No.	Question
	1-3		Serial No.
	4		Card No.
		A	ID Data
	5	1	Level of Development
	6	2	Community No.
	7	3	Community Type
	8	4	Population
	9	5	Residence
	10	6	Socio-economic Status
	11-12	7-8	Subject No.
	13	9	Interviewer No.
		F	Social Participation
1	14	75	Member, Formal orgn.
2	15	76	No. of formal orgns., member
3	16	77	Frequency of attendance, formal orgns.
4	17	78	Member, Informal group
5	18	79	No. of informal groups, member
6	19	80	Frequency of attendance, informal grps.
		G	Sources of Information
7	20	81	No. of Sources
8-9	21-22	82-83	Most important source
10-11	23-25	84-86	Agric/Fishing: Most valuable source
12-13	26-28	87-89	2nd Most valuable source
14-16	29-31	90-92	3rd " " "
17	32	93	Frequency of contact: 1st source
18	33	94	2nd "
19	34	95	3rd "
20-21	35-37	96-98	Citizenship: Most valuable source
22-23	38-40	99-101	2nd " " "
24-25	41-43	102-104	3rd " " "
26	44	105	Frequency of contact: 1st source
27	45	106	2nd "
28	46	107	3rd "
34-36	47-49	108-110	Health & Sanitation: Most Valuable source
31-32	50-52	111-113	2nd Most valuable source
33-35	53-55	114-116	3rd " " "
43	56	117	Frequency of contact: 1st Source
37	57	118	2nd "
38	58	119	3rd "
39-40	59-61	120-122	Better Life: Most valuable source
42-28	62-64	123-125	2nd " " "
29	65-67	126-128	3rd " " "
30	68	129	Frequency of contact: 1st source
31	69	130	2nd source
57	70	131	3rd source

CARD 3

Column No.	Item No.	Question
1-3		Serial No.
4		Card No.
	[A] ID	Data
5	1	Level of Development
6	2	Community No.
7	3	Community Type
8	4	Population
9	5	Residence
10	6	Socio-economic Status
11-12	7-8	Subject No.
13	9	Interviewer No.
	[H]	Opinion Leadership 24
14	132	Agric/Fishing?
15-16	133-134	1st opinion leader
17-18	135-136	2nd " "
19	137	Most credible
20	138	Citizenship?
21-22	139-140	1st opinion leader
23-24	141-142	2nd " "
25	143	Most credible
26	144	Health & Sanitation?
27-28	145-146	1st opinion leader
29-30	147-148	2nd " "
31	149	Most credible
32	150	Better Life
33-34	151-152	1st opinion leader
35-36	153-154	2nd " "
37	155	Most credible
38	156	Innovator?
39	157	BP or LP?
40-41	158-159	Innovator's occupation
42	160	Agric./Fishing?
43	161	BP or LP?
44-45	162-163	Occupation
46	164	Will try out new products & techniques
47	165	Uses insecticide/ice
48	166	Effectiveness of practice
49	167	Health & Sanitation
50	168	BP or LP?
51-52	169-170	Occupation
53	171	Consults doctor
54	172	Last consultation
55	173	Followed doctor's advice/ take medicine
56	174	Effectiveness of advice/ medicine
57	175	Government?
58	176	BP or LP?
59-60	177-178	Occupation
61	179	See or write congressman
	[I]	Innovativeness 22

CARD 4

Column No.	Item No.	Question
1-3		Serial No.
4		Card No.
	A	ID Data
5	1	Level of Development
6	2	Community No.
7	3	Community Type
8	4	Population
9	5	Residence
10	6	Socio-economic Status
11-12	7-8	Subject No.
13	9	Interviewer No.
	J	Mass Media: Radio 16
14	180	Listens to radio
15	181	Where
16	182	How often
17	183	Language
18	184	Kind of program
19	185	Program preference
20	186	Frequency: News
21	187	Music
22	188	Drama
23	189	Other
24	190	Time for listening: News
25	191	Music
26	192	Drama
27	193	Other
28-29	194-195	Days for listening: News
30-31	196-197	Music
32-33	198-199	Days for listening: Drama
34-35	200-201	Other
	K	Mass Media: Reading Materials 20
36	202	Read Newspapers
37	203	Where
38	204	How often
39	205	Language
40	206	Language read most often
41	207	Language preference
42-43	208-209	Part most often read
44	210	Read Magazines
45	211	Where
46	212	How often
47	213	Language
48	214	Language read most often
49	215	Language preference
50-51	216-217	Part most often read
52	218	Read Comics
53	219	Where
54	220	How often
55	221	Language
56	222	Language most often read
57	223	Language preference
58-59	224-225	Kind most often read
60	226	Saw Poster
61	227	Topic
62	228	Read Pamphlet
63	229	Topic

CARD 4 (page 2)

	Column No.	Item No.	Question		Column No.	Item No.	Question
		L	Level of Living 6				
	64	230	Land property				
	65	231	Location				
	66	232	Portion used for agric./fishing				
	67	233	Crops/fish produced				
	68	234	Use of non-farm land				
	69	235	Business enterprise				
	70	236	No. of paid employees				
	71-72	237-238	Major source of income				
	73	239	Ave. mo. income from all sources				
	74	240	Modern appliances/eqpt. owned				
	75	241	House construction				
	76	242	No. of rooms				
	77	243	House owned or rented?				

APPENDIX A-5

DESCRIPTION OF DATA CONTAINED IN AOV CARD DECK

Each card contains means for each of 60 groups of subjects which represent all possible combinations of 3 levels of development, 5 different communities studied at each level, 2 types of residence (barrio, poblacion), and 2 different levels of socio-economic status.

Code for variable is as follows:

LOD: 1 = Above Average

2 = Average

3 = Below Average

Community No.: 1-5 (no particular meaning)

Residence: 1 = Poblacion Resident

2 = Barrio Resident

Analysis Format: (Final Form)

Between Communities	df
Level of Development (A)	2
Error	12
Within Communities	
Residence (B)	1
Socio-Econ. Status (C)	1
A x B	2
A x C	2
B x C	1
A x B x C	2
Error	36

This represents final form mixed model. Program employed is general AOV where communities (N=5 per level) is treated as a variable. Therefore, between community error equals "D" (or community) effect plus D x A interaction which when combined has 4 + 8 = 12 total df. Within error term contains D x E = df, D x C = 4 df, D x A x B = 8 df, D x A x C = 8 df, D x B x C = 4 df, plus D x A x B x C = 8 df effects summed for 36 df. These summations are done by hand for each of the 58 items analyzed. (A conversion program could easily be written to omit the hand calculation).

Seven item means were printed on each of 9 separate cards for each of the 60 subject groups described before. This was done to permit data to fit the general AOV program format. Three-digit data were used for each item average. Card content is as follows, reading from left to right (disregarding ID data)

Card 1: Control Data:

Item 10: (time of interview)

Item 11: (length of interview)

Item 14: (No.of people present during interview)

Item 16: (No. of interruptions)

Item 19: (Attitude of Respondent)

Item 41: (Age of Respondent)

Item 46: (Length of Resp. residence in town)

Note all Card 1 data used to describe population studied and similarities in interviewing.

Card 2: Respondent's Description (R = respondent)

Item 45: R's No. of children

Item 47: No. of other dependents for R

Item 48: Relationship to R

Item 49: R's education

Item 53: No. of yrs. in primary occupation

Item 56: No. of secondary occupations

Item 57: Time spent in secondary occupations

Card 3 = Satisfaction & Aspirations

Item 62: Satisfactions with present occupation

Item 63: Remain in Occupation

Item 67: Ed. for children (aspirations)

Item 68: Consumer Goods Aspirations

Item 69: Land Aspirations

Item 70: Monthly Income Aspirations

Item 71 & 72 combined: Political Contact Aspirations

Card 4 = Sources of Information

Items 73 & 74 combined: Aspirations for Pol. office

Item 76: No. of organizations to which R belongs

Item 79: No. of groups to which R belongs

Item 80: Freq. of informal group meetings

Item 81: No. of information sources mentioned

Item 93: Freq. of contact with most valuable source

Item 94: " " " " 2nd most " "

[Items 93, 94, 95 deal with information regarding information in general].

Card 5: . Freq. of Contacts with Information Sources

Item 95: Freq. of contact with 3rd most val. source
Item 105: Freq. of contact with info. for citizen's rights (1st)
Item 106: Freq. of contact with info. for citizen's rights (2nd)
Item 107: Freq. of contact with info. for citizen's rights (3rd)
Item 117: Freq. of contact with most valuable source--Health
Item 118: " " " " 2nd " " " "
Item 119: " " " " 3rd " " " "

Card 6: Innovativeness

Item 157*: Socio-econ. status of innovators
Item 161: " " " " "
Item 168*: " " " " "
Item 176*: " " " " "
Item 180*: Freq. of contact-- Radio
Item 182: " " " -- "
Item 186: " " " -- News

Card 7: Mass Media Contact

Item 187: Freq. of contact-- Music
Item 188: " " " -- Drama
Item 189: " " " -- (Misc.)
Item 202: " " " -- Newspapers
Item 204: " " " -- "
Item 210: " " " -- Magazines
Item 218: " " " -- Comics

*Improper codes used (no scales).

Card 8: Present status

Item 220: Freq. of contact--Comics
Item 230: Present status: Land
Item 232: " " : Ag. use of land
Item 236: No. of employees
Item 239: Av. monthly income
Item 240: No. of appliances owned
Item 241: House construction

Card 9: Present Status

Item 242: No. of rooms
Item 243: House ownership

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13. ABSTRACT

This report discribes the method and results of a base line survey in the Philippines. Topics covered include mass and interpersonal communications, innovativeness, opinion leadership, etc. Illustrative data are given showing how the data can be used to arrive at a decision-making model for communications specialists working with problems of planned social change in developing countries.

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